C2710-3

Automotive News

NOVEMBER 4, 1991

Entire contents © 1991, Crain Communications, Inc. Use of editorial content without permission is strictly prohibited.

$70/YEAR; $2/COPY

late news

Senate blocks vote on energy

WASHINGTON — The Senate on Friday decided not to vote on an energy bill that included a proposal to increase corporate average fuel economy standards. Sen. Bennett Johnston, D-La., fell 10 votes shy of the 60 needed to proceed.

Johnston's office indicated that a revised proposal could be resubmitted later this month. Johnston had backed a plan to raise CAFE standards 20.9 percent by model year 2001.

A competing bill by Sen. Richard Bryan, D-Nev., calling for a 40 percent increase in CAFE by 2001, has not been scheduled for Senate debate. After Friday's vote, Bryan plugged his bill, warning that the Japanese "intend to use improved fuel economy to bludgeon our auto industry once again."

— *Max Gates*

BMW prices rise for 1992

NEW YORK — BMW of North America Inc. hiked prices by a few hundred

see LATE NEWS, 2

Big 3 must book huge losses

Retirees' health-care costs to slash equity by billions

Chrysler loses $82 million ➤ 4

MARY CONNELLY, PHIL FRAME and KATHY JACKSON
Staff Reporters

Big 3 financial executives are trying to decide when to make a mandated accounting change that could slash more than $20 billion from their combined balance sheets in 1993.

The change could show up as multi-billion-dollar losses on income statements and will drastically cut shareholders' equity, or net worth.

Cash flow and operations will not change under the new accounting standard for future retirement benefits. But balance sheets will take a big hit, and reported annual earnings will be reduced by hundreds of millions of dollars each subsequent year as automakers account for the liability for future post-retirement health and other benefits for both active employees and current retirees.

Until now, companies have simply booked the expense of those benefits as they were paid.

"Obviously, with our very large retiree population, our very large work force, it is going to have a tremendous impact on General Motors," said GM Chairman Robert Stempel. "But we haven't forecast the amount yet."

The accounting change shines a spotlight on the automakers' huge health-care costs, which have been growing at double-digit rates. According to a 1990 study issued by Sanford C. Bernstein & Co. Inc. in New York, health care cost $579 for each GM car, $357 for each Ford and $452 for each Chrysler vehicle. The study said Japanese transplant operations pay $85 in health-care costs for each vehicle produced.

The accounting change doesn't actually cost corporations more than they currently pay, but it forces companies to account for the enormous liabilities of the future.

Chrysler Corp. estimates its one-time charge at between $4 billion and $6 billion. If taken at once, the charge could effectively eliminate the company's shareholders' equity of $6 billion.

Ford's charge is estimated at between $5 billion and $9 billion, compared to shareholders' equity of $20.4 billion as of Sept. 30.

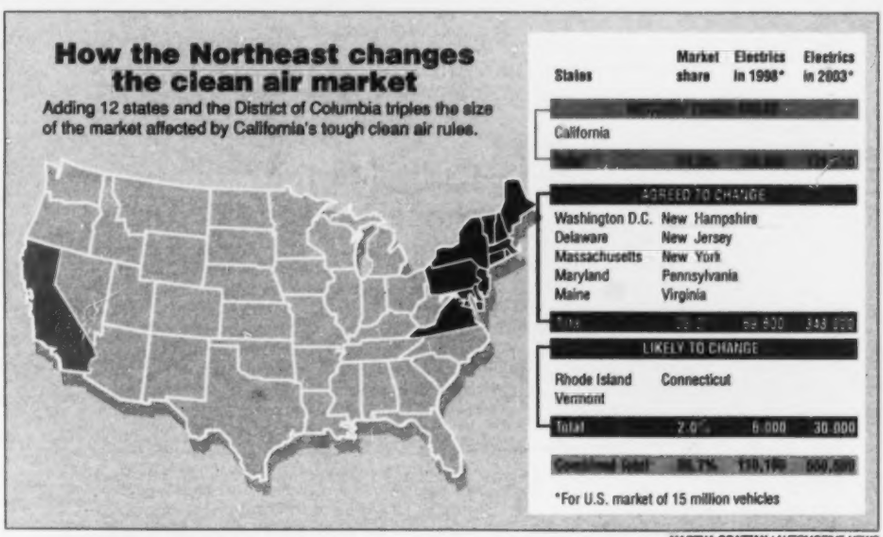
General Motors, which has both more employees and more retirees than Ford and Chrysler combined, will certainly have to take an even bigger charge.

The accounting switch will add a liability to the balance sheet for all the non-pension, post-retirement benefits that will be owed in

see WRITE-OFF, 50

Calif. air rules may cover Northeast

Would affect 36% of vehicles in U.S.



MARTHA GRATTAN / AUTOMOTIVE NEWS

JIM HENRY and KRISTINE STIVEN BREESE
Staff Reporters

NEW YORK — More than a third of the nation's cars and light trucks would have to meet California's stricter emissions standards if all the states that have now endorsed the higher standards adopt them.

The effort to expand the California club gained more political clout last week when the governors of nine states and the mayor of Washington signed an agreement to support California-style rules in their jurisdictions.

The states are Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania and Virginia.

Those states plus California and three other states that are considering adopting California rules represented 36.7 percent of U.S. car and light-truck registrations in 1989 and 1990. California represented 11.5 percent, so the total bloc would be more than three times the size of California.

Predictably, auto industry representatives met the news with a groan, even though last week's agreement had no immediate practical effect. All those states had already taken preliminary steps toward imitating California's rules, and the new rules have already survived court challenges in some states.

"This will make our job a lot more difficult," said John Schutz, director of powertrain and emissions for Nissan Research and Development Inc. in Gardena, Calif.

see CLEAN AIR, 50

Sale to help Chrysler now; Mitsubishi must wait

LINDSAY CHAPPELL, MARY CONNELLY and MARY ANN MASKERY
Staff Reporters

Mitsubishi Motors Corp., which has sought more production space to supply its growing U.S. retail trade, now owns 100 percent of a plant whose products are more oriented to Chrysler Corp. than ever before.

Chrysler's sale of its 50 percent stake in Diamond-Star Motors Corp. last week leaves Mitsubishi bearing the cost of developing some new Chrysler vehicles, yet analysts believe the Japanese ex-partner may come out better in the long run.

Under terms of the buyout:

- Mitsubishi agreed to continue a future-product plan that is slanted toward providing Chrysler products. By 1994, the Diamond-Star plant in Normal, Ill., will produce

see DIAMOND, 52

DAVID L. BURHANS / AUTOMOTIVE NEWS

Advent of electric car creates hurdles for NHTSA, GM dealers

PHIL FRAME
Staff Reporter

As General Motors races to become the first manufacturer to mass-produce a modern electric car, potential delays lie in wait that aren't directly related to development of the vehicle.

National Highway Traffic Safety Administration regulations must be interpreted or rewritten, a process that will take at least 18 months.

And thousands of dealership service departments must be prepared to handle electric cars. Technicians must be trained to do the work, and new service equipment may have to be invented.

GM has made it clear that it wants to be the first on the market with a modern, mass-produced electric car patterned after the Impact, which debuted on the auto show circuit in January 1990.

Public response was so strong, it convinced GM that it should manufacture the car. Last spring, GM announced that the car will be built in Lansing, Mich., and has since tabbed the suppliers for the car's "powertrain" components. Plans for start of production are

see ELECTRIC, 10

NEWSPAPER

#BXBBDJB******5-D1GIT 20814
#0303229O8 2#03AN14451 99AMZ
ACQ EDITOR
ACQ EDITOR SRI
CONGRESSIONAL INFO SERV
20 EAST-WEST HWY STE8
THESDA MD 20814

NEW INTEREST IN NATURAL GAS 16

inside Automotive News

JAPAN'S EARNINGS DIP
Nissan, Mitsubishi report first-half falloffs. PAGE 4

CRASHING SWORDS
NHTSA crash-test film fuels debate over data. PAGE 4

PRIVATE MATTERS
Dealers are losing more used-car business. PAGE 6

READY TO BATTLE CHEVY
Ford returns to Indy with a new Cosworth engine. PAGE 8

SLOW START FOR PONTIAC
Low supplies of new cars are hurting sales. PAGE 8

PEUGEOT'S OPTIONS
Dealers had until last Friday to decide their future. PAGE 22

NO WEDGE FOR INFINITI

▲ The 1993 J30 is shaped like an elongated egg. PAGE 26

VIPER ON THE LINE
Assembly plan borrows from the old for the new. PAGE 36

RENAULT DROPS JEEP
Chrysler assumes role of distributor for Europe. PAGE 52

DEPARTMENTS

Auction ads	38-41
Auction dates	48
Classifieds	42-46
Calendar	53
Comment	14
Dealers	32
Incentives	54
Keith Crain	12
Legal file	37
Letters	12-14
Obituaries	46
Opinion	12
Personnel	30
Production	55
Sales, Mexico	10

NOVEMBER TABLES

TODAY
Production, weekly by model 55

NOVEMBER 11
Sales, October top 10
Sales, October by maker
Sales, year to date by maker
Sales, domestic car by model
Sales, light truck by model
Production, weekly/Oct. totals

NOVEMBER 18
Sales, import car by model
Sales, Canada by make
Sales, dealer by make
Sales, 10 day by make
Inventory, as of Nov. 1
Production, weekly by model

NOVEMBER 25
Sales, truck by gvw
Production, weekly by model

66th year—No. 5418

Advertising Production Dept. (313) 446-6063
Circulation Department
In Michigan (313) 446-0460
Outside Michigan 1-800-678-9595
Classified Ad Department (313) 446-6085
Display Ad Department (313) 446-6000
Editorial & Business Offices (313) 446-6000

AUTOMOTIVE NEWS (ISSN 0005-1551) is published weekly except semimonthly the fourth week in May at 1400 Woodbridge, Detroit, MI 48207-3187. Second-class postage is paid at Detroit, MI and at additional mailing offices. Postmaster: Send address changes to AUTOMOTIVE NEWS, Circulation Department, 965 E. Jefferson, Detroit, MI 48207-3185.

HANS G. LEHMANN/HIDDEN IMAGE

Mercedes prepares S-class coupe

Mercedes will release this 6.0-liter V-12 powered 600SEC coupe in spring 1992. The four-seater sports a nose similar to Mercedes' SL sports cars and has a much shorter rear deck than its predecessor. A convertible version is expected sometime in the future.

latenews

CONTINUED
from PAGE 1

dollars at the low end of its 1992 line and about $2,000 for some of its most expensive models.

The 325i sedan, introduced as an early 1992 model last June, stays at $27,990. It's the first of several models in an all-new 3 series, with a new coupe due in 1992.

The 318i convertible rose $370, or 1.3 percent, to $28,870. The 325i convertible is $36,320, up 1.7 percent. They are the only remaining models of the old 3-series.

The mid-range 525i went up $1,100, or 3.2 percent, to $35,600. The more powerful 535i is $44,350, up 4.1 percent.

The 735i jumped $2,090, or 4.1 percent, to $52,990. The 735i went up 3.5 percent to $56,950.

Prices for the 750iL and 850i will be announced after Jan. 1.

— Jim Henry

Honda promises to buy more foreign chips

TOKYO — Honda Motor Co. said it has raised its target for installation of foreign-made semiconductors in Japan- and U.S.-built cars.

The company said last week that for the 1993 fiscal year ending in February 1994, it would boost its use of foreign-made chips to 20 percent of total from a current target of 10 percent. Honda said it expects foreign companies to supply about 9 percent of its semiconductor requirements in the current fiscal year, which ends next February.

The company said the value of its foreign purchases in the 1993 fiscal year will rise to about 5 billion yen (about $38.2 million at current rates) from 1.8 billion yen ($13.7 million) in the current fiscal year.

The semiconductors are used for engine-control systems, instrumentation, cruise-control systems, air conditioners and audio systems.

Honda also plans to begin applying foreign-made chips to anti-lock braking systems and air bags. Honda expects to set up development collaborations with foreign suppliers, the company said.

— Richard Johnson

VW defers payments for Calif. fire victims

SAN FRANCISCO — Volkswagen dealers in the San Francisco area are offering special deferred-payment financing to Oakland and Berkeley, Calif., residents who lost property in the area's fire disaster last month.

Residents of Oakland and Berkeley will be allowed to defer payments for up to four months when they purchase a new 1991 or 1992 Volkswagen from any of the area's 16 VW dealers.

Emil Paul, general manager at Broadway Volkswagen in Oakland, said the offer is meant to help those residents who lost vehicles in the fire and don't have the resources to begin making new-car payments right away.

"This is our small way of helping those people get back on their feet," said Paul.

Nissan will try again to keep injury logs secret

NASHVILLE, Tenn. — Nissan Motor Manufacturing Corp. U.S.A. says it will again appeal a Tennessee ruling ordering the company to turn over worker injury logs to four former employees.

The logs became an issue in a 1989 UAW organizing campaign when workers said injury rates were high at the plant. Nissan said the plant's injury rate was among the lowest in the industry. The organizing drive failed.

Last month, an administrative law judge upheld a 1989 verdict from the Tennessee Department of Labor that Nissan must release the injury reports. On Oct. 25, an independent review committee appointed by the governor of Tennessee upheld the recent administrative judge's ruling. Nissan, which contends that release of the data would be a violation of employees' privacy, has not paid the fine and will now take the case to chancery court in Nashville.

— Lindsay Chappell

Ford's Marine Midland changes name to Primus

BRENTWOOD, Tenn. — Ford Motor Co.'s Marine Midland Automotive Financial Corp. subsidiary has changed its name to Primus Automotive Financial Services Inc.

Primus President George Watts said the company now has established wholesale finance relationships with 210 dealerships, and receivables have grown from approximately $500 million to $650 million over the past year. Ford acquired the company in 1990.

Watts said Primus expects the number of wholesale customers to increase to about 300 next year. Primus is processing about 5,000 retail contracts a month for import dealerships. Volume is expected to reach almost 8,000 contracts a month next year, Watts said.

Primus provides private-label financing through Mazda American Credit and Jaguar Credit and was recently named as the lender of choice for Daihatsu America Inc.

The company also is helping Subaru of America Inc. establish a retail leasing program in markets outside New England.

Primus will move its headquarters from Brentwood to nearby Nashville in January.

— Lindsay Chappell

Cummins forms venture with Soviet truckmaker

COLUMBUS, Ind.— Cummins Engine Co. said last week that it has formed a 50-50 joint venture with Kamaz Inc. of the Soviet Union. It is called KamDizel.

The venture will handle application engineering, marketing, servicing and eventually production of Cummins engines. Its marketing and application work will cover engines ranging from 76 to 2,000 horsepower.

The engines are to power Kamaz trucks, particularly those for export; Ikarus buses and other buses; and trucks and industrial equipment produced within the Soviet bloc.

Engines will be supplied initially by Cummins' plant in the United Kingdom.

Cummins is a major producer of diesel engines, and Kamaz is the world's largest maker of heavy-duty trucks.

briefly

Honda minivan too big for Ohio

Honda Motor Co. Executive Vice President Shoichiro Irimajiri says it would take Honda four years to prepare a minivan for the U.S. market, partly because the company has no line to build it on. A minivan would not fit on Honda's Ohio assembly lines because "the size of the body is too big. That is our problem, we have no manufacturing for the minivan."

POLK MAKES MONEY — Not all auto-related companies write with red ink during depressed economic times. The automotive marketing division of R.L. Polk & Co., a research and marketing firm in Detroit, is projecting a boost in revenues this year. "A depressed auto market helps our business," said Joseph Cirrincione, president of Polk's Automotive Marketing Group. "Auto companies step up marketing, and they tend to re-evaluate their dealer base." Cirrincione says Polk's clients include every automaker doing business in the United States. He says revenues from the automotive division will be up 7.5 to 8 percent from 1990 and will account for about one-third of the company's projected $300 million total revenues this year.

BRAKING HABITS — Motorists on Germany's *autobahnen* aren't used to keeping the pedal *from* the metal, but in bad weather they'll have to do just that. The German government, in an effort to eliminate highway pileups that routinely involve dozens of vehicles, has imposed a weather-based speed limit. A 50-kilometer-per-hour (30 mph) limit now kicks in whenever heavy fog cuts visibility to less than 50 meters (165 feet). Speeds on the *autobahn* usually average 90 mph.

OL' FAITHFUL —A Tennessee dealership is giving new meaning to the phrase "repeat business." Last week, Tarr **Chevrolet** in Jefferson City delivered a 1992 Caprice to Buford Bible, an 86-year-old retired school teacher. In 1954, Bible ordered his first of 35 Tarr Chevrolets, a turquoise and white Bel Air. He has bought a new one every year since 1957. Five years ago owner Lonus Tarr extended his "Buy 20 cars, get one free" policy to give Bible a free Chevy after his 30th purchase. He's been promised another after his 40th.

WHO'S THE BOSS? — For an 80-year-old whose family controls more than 50 dealerships, Victor Potamkin was quite humble when Cadillac big-wigs led by General Manager John Grettenberger showed up at last week's grand re-opening of Potamkin **Cadillac-Buick-Chevrolet** in Manhattan. "I have to go now," Potamkin told a TV crew that was interviewing him when Grettenberger arrived. "He's my boss."

Potamkin bows to the boss

GOOD NEWS, KINDA — A friendly observer based in our nation's capital spotted this one: Following the Clarence Thomas confirmation hearings and Congressional check-bouncing disclosures, a national poll shows the reputation of automobile dealers is now 77 points higher than that of senators and members of Congress.

Nissan, Mitsubishi report earnings drop

Weak sales, rising costs cited for 1st-half falloffs

MARY ANN MASKERY
Staff Reporter

TOKYO — Two of Japan's biggest automakers, No. 2 Nissan Motor Co. and No. 4 Mitsubishi Motors Corp., last week posted sharp declines in operating profit for the first half of their fiscal years in the face of continuing weak sales and rising costs.

Nissan said its unconsolidated operating income for the six months ended Sept. 30 slid 70.1 percent from a year earlier, to 21.7 billion yen (about $167 million), as worldwide vehicle sales slipped 2.9 percent, to 1.15 million units.

Unit sales in the home market fell 4.9 percent from the record level of a year earlier to 682,449, the company said.

Net income fell 48.2 percent, to 24.27 billion yen (about $186 million), Nissan said.

The company said it expected to post lower earnings for the full fiscal year as rising costs offset the benefit of a projected increase in sales.

"Investments aimed at ensuring future growth will continue to swell operating expenses" in the second half, offsetting the benefits of stronger domestic demand, said Atsushi Muramatsu, Nissan's executive vice president.

The company said it also expects higher steel costs in the second half, as well as higher research costs to meet environmental concerns in both the United States and Japan.

Meanwhile, Mitsubishi said Friday that its operating profit for the first half of its fiscal year slid 24.4 percent from a year earlier and that it expected weaker earnings for the full year.

The report followed by only days the company's announcement that it will pay a total of $450 million to take over Chrysler Corp.'s 50-percent share of Diamond Star Motors Inc., the two companies' joint-production venture in Normal, Ill.

That cost will be reflected in the company's second-half results.

Mitsubishi said the drop to 26 billion yen (about $200 million), reflected weakness in the Japanese truck market, high development and operating costs, and weak sales for its mainstream Mirage and Galant models.

Net income, which reflects tax treatment and other considerations, rose 21.2 percent to 14.6 billion yen (about $112 million). The company said it expected profits to continue weak for the remainder of the fiscal year.

Mitsubishi said home-market unit sales rose fractionally in the period, to 372,019 from 360,199 a year earlier.

Exports also increased, from 269,621 to 295,003.

Even Toyota Motor Corp., the Japanese industry's biggest and wealthiest producer, has put a clamp on spending in anticipation of sharp profit declines.

In recent weeks, the company has warned all supervisors of the need to curb costs in their respective sections.

Tighter belt limited loss, says Chrysler

MARY CONNELLY
Staff Reporter

HIGHLAND PARK, Mich. — Chrysler Corp. claims its ongoing corporate restructuring is making the company fiscally fit.

Chrysler last week said it lost $82 million, or $0.36 per common share, in the third quarter, considerably less than the loss of nearly $200 million anticipated by auto analysts.

General Motors lost $1.06 billion in the third quarter, and Ford Motor Co. posted a $574.4 million deficit.

"We believe that our results compared to Ford's and GM's indicate that we are pretty well along when compared to them in terms of achieving fundamental change in the way we do business, both in terms of the efficiency of the day-to-day operations as well as the effectiveness of our new-model development process or platform team concept," said Jerome York, Chrysler executive vice president of finance.

In the third quarter, the company achieved for the first time $3 billion in annualized cost reductions, York said.

Third-quarter results also reflected a decline in the sales percentage of lower-margin fleet units.

"Our fleet sales in the third quarter ran 16 percent of the total vs. 25 percent in the second quarter," York said.

"We believe the decline is a function of two things. The third quarter is normally lower than the second because of the daily rental companies' buying cycle. And manufacturers have been taking steps to try to stretch out the length of time the car rental units are in service. We believe that was a factor as well."

Per-vehicle incentive costs were unchanged from the second quarter and averaged about $1,300 per unit in the third quarter, York said.

York: Factor in daily rental sales

Chrysler also improved its cash position in the third quarter. The company's cash horde rose to $2.5 billion, up from $2.4 billion at the end of the second quarter.

Chrysler reported the $82 million loss on total sales and revenues of $7.5 billion for the quarter. That compares to a loss of $214 million on sales and revenues of $6.5 billion for the 1990 period.

For the first nine months of 1991, Chrysler lost $892 million, compared to net earnings of $37 million for the same period of 1990.

Sales and revenues for the first nine months of 1991 were $21.1 billion compared to $23.0 billion for the 1990 period.

Chrysler's dealers sold 614,433 cars and 679,024 trucks and minivans in the United States and Canada in the first nine months of 1991.

Worldwide factory sales in the first nine months of 1991 were 1,352,002 vehicles, compared to 1,491,950 for the same period a year ago.

Chrysler Financial Corp., the company's financial services subsidiary, reported third-quarter earnings of $81 million, compared to $83 million in the third quarter of 1990.

THIRD QUARTER FINANCIAL RESULTS

	Total sales (billions)	Change from '90 (billions)	Net income (millions)	Change from '90 (millions)
GM	$28.9	$-1.9	$1,060	$+919
Ford	21.1	-1.9	574	-676
Chrysler	7.5	+1.0	82	+132

Source: Manufacturers

Recession, not dealers, blamed for 24% hike in bankruptcies

CHARLES M. THOMAS
Staff Reporter

Bankruptcy filings on indirect auto loans soared 24 percent in 1990 and are expected to climb another 21.2 percent this year, which means banks probably won't loosen credit policies soon.

The figures released by the Consumer Bankers Association aren't expected to affect the relationship between lenders and dealers. Indirect loans originate at dealerships, rather than at bank offices.

"Many of these loans were made two or three years ago," said George Williams, chairman of the Consumer Bankers Association and senior vice president of AmSouth Bank, in Birmingham, Ala.

Financial institutions have spent the last two years evaluating and strengthening credit guidelines. Even the automakers' captive finance companies have instituted tiered credit ratings.

"The rise in bankruptcies is certainly not the dealers' fault," said Williams. "This recessionary period is part of what we must pay to get back to the fundamentals of sound credit."

Because consumer bankruptcies are responsible for a bigger share of auto loan losses, 87 percent of the lenders in the survey said they are taking steps to prevent them.

Of those, 38 percent said they offer credit counseling to the customer; 35 percent said they have upgraded qualifications for credit; and others said they have offered loan extensions, refinancing, debt consolidation and reduced payments to help customers avoid bankruptcy.

The banks aren't the only ones helping customers avoid bankruptcy. A Ford Motor Co. spokesman said the company's repossession rate has remained low, bucking industry trends because "we will do almost anything to help customers stay in their cars."

At General Motors, the repossession rate (annualized percentage of the average number of contracts outstanding) was 2.64 for the first nine months of this year, up from 2.52 for the same period a year ago.

In the Consumer Bankers Association survey, 64 percent of the respondents said they are looking at systems to track bankruptcies. And 29 percent said they now use a bankruptcy predictor model like those offered by credit bureaus and credit scoring companies.

Seventy-seven percent of the lenders said customers filed for bankruptcy because they were overextended on credit. The

see LOANS, 54

Film fuels debate on crash-test data

MAX GATES
Staff Reporter

WASHINGTON — A spat here last week over the crashworthiness of small cars has spotlighted an open question: Should consumers believe their eyes or the test scores when judging a car's safety?

Data from dummies used in car crash tests give a less complete picture of the safety of an automobile than films of the crash, say a federal official and an auto safety investigator.

Not so, says a consumer safety advocate, who argues crash films are misleading. Only the dummy measurements of potential for head, chest and leg injuries accurately reflect the dangers to auto occupants in a collision, says Clarence Ditlow, executive director of the Center for Auto Safety.

The disagreement emerged from a furor over the use of a government film in a lobbying campaign against higher corporate average fuel economy standards.

The film shows a head-on collision between a 3,860-pound Ford Crown Victoria and a 1,920-pound Subaru Justy. The Justy showed severe damage; the Crown Victoria was mildly disfigured.

But data from the dummies inside those cars indicate that even though the Justy did not contain an air bag, an occupant would probably have survived the crash. Head-injury readings were below the level where death is possible, according to calculations by the National Highway Traffic Safety Administration, while chest injuries slightly exceeded the threshhold for possible serious injury or death. Crown Victoria readings were well below the threshhold.

"To my mind, the visual is a better depiction of the overall effect (of a crash) than just looking at the test scores," said George Parker, head of NHTSA research.

NHTSA, which produced the film, runs the New Car Assessment Program that reports test scores from dummies in 35 mph laboratory crashes of new cars.

But Ditlow says, "You should believe the numbers, not your eyes. All crashes appear violent. What one has to look at is whether the occupant survives, not how much damage there is to the car. Film is deceptive."

The film was used by the industry-backed Coalition for Vehicle Choice in an ad opposing stiff new CAFE standards. In its ads, the coalition contends that increased fuel economy, such as the 40 percent gain by 2001 proposed by Sen. Richard Bryan, D-Nev., will require automakers to produce smaller and less safe cars.

Another crash test, this one conducted earlier this year by the Insurance Institute for Highway Safety in Arlington, Va., may provide a better picture of what collisions between big cars and small cars will look like in the future.

The test involved a head-on collision between a 3,580-pound Buick Park Avenue and a 2,282-pound Geo Storm. Both contained air bags, which are expected to be nearly universal in U.S. cars produced by the 1996 model year, the earliest that proposed new fuel economy standards would take effect.

In the Insurance Institute test, measurements of the dummy in the Geo Storm were well within acceptable test limits for head, chest and leg injuries.

Dummy measurements in the Buick Park Avenue were also within the threshold for both head and chest injuries. But the Park Avenue exceeded the standard for leg injuries, indicating that serious injury was possible.

Chuck Hurley, Insurance Institute researcher, warns, "Dummy values don't measure all the violence of a crash. Their simplistic use is not good science."

Hurley said film of the crash showed that the head of the dummy in the Storm went out the open side window, then back in, without hitting anything.

"You have to look at the cars as well as the numbers,' said Hurley, whose group has sided with NHTSA in arguing that a higher CAFE will lead to smaller cars and more highway deaths.

Curry blasted by Ditlow, Claybrook

The debate over the validity and use of the National Highway Traffic Safety Administration crash-test film reached a political flashpoint last week.

Consumer advocates Clarence Ditlow of the Center for Auto Safety and Joan Claybrook of Public Citizen accused NHTSA Administrator Jerry Curry of misusing the powers of his office.

Claybrook and Ditlow, citing documents obtained under government sunshine laws, claimed that Curry ordered NHTSA contractors to crash test the two cars specifically to produce dramatic film at a cost of $200,000 to taxpayers. Curry then distributed hundreds of copies of the film, including one copy to the Coalition for Vehicle Choice, according to Claybrook and Ditlow. The industry-backed coalition used the film in an ad opposing stiff new corporate average fuel economy standards.

Curry, who has argued that mandates for stiff fuel economy will result in smaller cars and more traffic fatalities, admitted ordering the crash test. "That's my job," he said.

He also admitted distributing hundreds of copies of the film. But he denied any collusion with the coalition to aid in its campaign against higher fuel economy standards.

— Max Gates

ELECTRIC

New rules for new cars

continued from PAGE 1

top secret, but sources at GM indicate that the company hopes to start very limited production during the 1993 calendar year. But even if the car and plant were ready now, certifying that the car meets NHTSA safety regulations would be problematic.

The NHTSA regulations need attention because there are concerns about electric vehicles that are not addressed in today's requirements — among them high voltage, electrical braking systems, battery safety and information displays.

There also are some present requirements that make no sense for electric vehicles.

"Sometimes, the words we put in there deal with hydraulics or mechanical linkages, and when you get an electric vehicle, they just don't make sense," said Barry Felrice, NHTSA's associate administrator for rulemaking.

"The accelerator control may be one item. A safety standard requires that when you take your foot off the gas, the throttle has to go back to neutral, which is idling speed, and within a specified period of time. If everything is electrical in a car, I'm not sure what a throttle is."

RULEMAKING BEGINS

Felrice said the agency is putting together an Advance Notice of Proposed Rule Making that will deal with the safety of electric vehicles. He said the notice will be issued by the end of this year. Companies and groups then will have two months to comment before NHTSA issues a Notice of Advanced Rule Making. There's also two months of public comment at that stage.

Felrice said the advance notice will ask questions on two basic issues:

- Are there any specific safety regulations that need to be amended so as not to impede the introduction of electric vehicles?
- Should there be additional standards that apply solely to electric vehicles?

"We're not talking about doing away with safety standards or exempting these vehicles, but . . . some of our standards may not make sense," Felrice said. "Fuel system integrity is a good one. That deals with leakage of liquid fuel, and a pure electric vehicle isn't going to have any liquid fuel. What do we do in areas like that?"

As for new regulations, NHTSA will ask whether new requirements are necessary to cover areas such as battery safety, battery leakage, the integrity of the battery compartment and recharging.

"We could have a Notice of Proposed Rule Making probably by summer or early fall of 1992 and then a final rule probably in the spring of 1993," Felrice said. "It all depends on the comments we get back, how much work we have to do."

Some rules could take effect immediately, but new requirements probably wouldn't take effect for a year and a half after the final rule is issued, Felrice said.

"We really need to hear from the industry what their problems are," Felrice said. "They're developing these vehicles, and they know what difficulties they're having; we don't — we can only hypothesize."

The agency can handle some concerns by merely issuing a legal interpretation for an existing rule. NHTSA requires fuel gauges, for example, but electric vehicles carry no fuel. NHTSA could issue an interpretation that says a fuel gauge could be an indicator of electrical charge remaining.

"We did a report to Congress a year and a half ago, and we really didn't identify too many standards that might need to be changed for electric vehicles," Felrice said. "One (that may need changing) was our defrosting/defogging standard, which can pose a problem for electric vehicles because you need a lot of power to clear the windshields."

Also, NHTSA braking standards refer to hydraulics, and electric vehicles wouldn't have hydraulic brakes.

HELP FROM UL, SAE

Manufacturers are looking for help from voluntary organizations such as the SAE and Underwriters Laboratories in developing safe electric vehicles.

"Some manufacturers said they were talking with UL," Felrice said. "They would have UL make sure the electrical system was not in contact with the outer part of the body at all so you don't get shocks in crashes, or so emergency medical people would not be electrocuted if they have to cut through the vehicle to release somebody."

Felrice said the manufacturers would just as soon not have new NHTSA regulations, which would suit the agency fine.

"Our philosophy, and there's a presidential executive order addressing this, is we should adopt or rely on voluntary standards organizations before we issue federal regulations," Felrice said.

But NHTSA has no intention of exempting electric vehicles from crashworthiness standards or from having air bags, automatic belts or side-impact protection.

"There's absolutely no reason why you can't build an electric vehicle that's just as safe as a liquid-fuel vehicle," Felrice said. "If it's something that's impossible to meet, then we might exempt an electric vehicle."

SERVICE TRAINING

Preparing dealers to service electric vehicles is as important as development and certification concerns, said Jim Kelly, service readiness manager for GM's electric vehicles group.

Dealerships that sell electric vehicles probably will have to devote one or two service bays solely to them, depending on sales volume. Each bay will require a special electric twin-post above-ground hoist to allow technicians free access to the entire underside of the car, Kelly said.

That's because the 850-pound battery pack for the GM electric car runs the length of the vehicle, and technicians would have to be able to remove and replace it.

Some dealerships already may have such hoists, but some of those may not be adequate because they can't raise the car high enough, Kelly said.

The service bays also will need lifting tables to raise and lower the battery pack itself and some type of transporter to move the heavy battery pack around.

"We're looking at whether there is any equipment out there today that could handle this type of service," Kelly said. "We have not really found anything. It may require that something be developed."

Dealerships also would need a station to recharge the whole battery pack, which consists of 32 10-volt batteries, in just over an hour, Kelly said. That would require a 220-volt outlet. While most dealerships have 220 lines, they usually don't have 220 outlets.

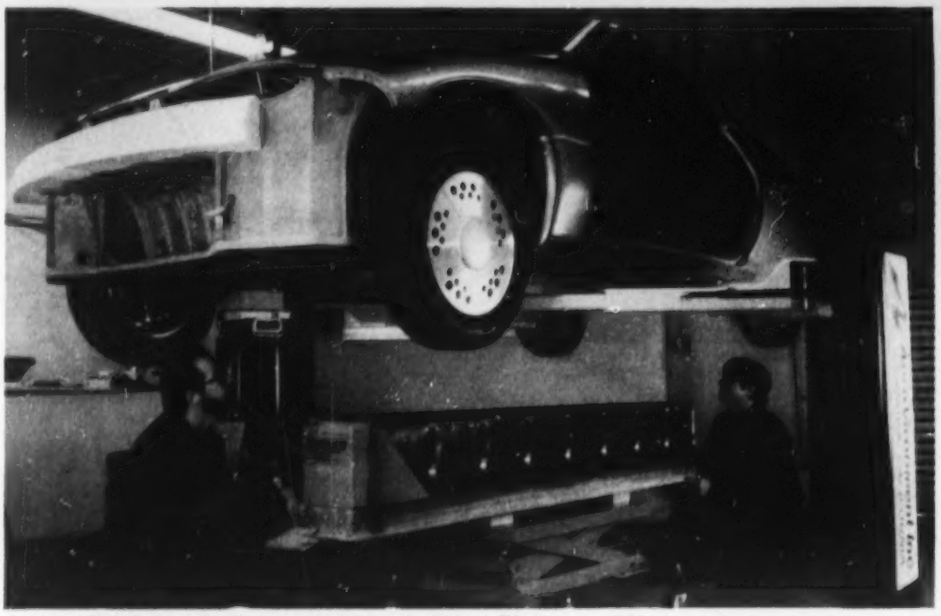
New electric vehicle software for diagnostic machines will require thousands of hours for development, Kelly said. He added that technician training will be another massive job.

"The training will be very extensive and has to be given to all our dealer technicians," Kelly said.

No small part of the training will be proper handling of high-voltage electrical systems. The battery pack will be capable of jolting a technician with a fatal dose of more than 300 volts of electricity, compared with a maximum of 15 volts from a current battery.

Dealers will have to make the service department changes, but once the electric vehicle is sold, there will be little or no scheduled maintenance — no oil changes, tuneups or filter or muffler replacement.

But if anything goes wrong with the car, the dealership will be the place to go because no aftermarket shop will be equipped to do the work, Kelly said.



Servicing GM's Impact electric car requires special vehicle and battery-tray lifts.

Increase your SALES by over

400%

This tax season turn your customers tax return into a down payment overnight! Through Tax Refund Express, you can provide your customer with a cash down payment immediately and make the sale on the spot instead of hearing "I'll be back when I get my tax refund".

Join our rapidly growing network of over 400 dealers and place your business far ahead of your competition! Last year our dealers reported:

$ Record increases in sales
$ Higher gross profits
$ Increased floor traffic
$ Dramatic increases in bottom line

Here is what two dealers had to say about Tax Refund Express:

"We sold an additional 180 cars last tax season through Tax Refund Express."
Robert Giles, President, Giles Nissan/Volvo.

"Tax Refund Express was definitely a successful program for us."
Brad Sather, V. P., General Manager, Gateway Chevrolet.

Best of all, we make it as easy as 1-2-3. Don't delay - **Call today for a free video presentation**. This tax season, you'll be glad you did!

Tax Refund Express

1-800-899-8829

Tax Refund Express • 2204 Austin • Houston, TX . 77002

Mexico sales rise 8% in August

MEXICO CITY — Mexico's auto market showed gains in August, but the sales pace slowed from earlier in the year.

Chrysler — led by strong boosts in its Shadow, Spirit and truck models — more than doubled its volume for the month. Its 5,234 additional sales in August were more than the entire industry gained.

The latest figures from the Mexican Automotive Industry Association show that overall sales of cars and trucks in Mexico rose 8.04 percent in August to 50,166. That brought total sales for the year to 424,431 units, a 21.8 percent increase from 1990 levels.

Industry leader Volkswagen was off for the month. So were its two closest followers, Nissan and Ford.

The sales figures include a small but growing number of imported models that have arrived since a ban on imports was lifted last year. A total of 594 imported models were sold in August, lifting the total for the year to 6,436 — about 1.5 percent of the total market.

Through August, General Motors' Silhouette minivan was the best-selling import, with 1,470 sales. Two other minivans, Chrysler's Voyager (508) and Ford's Aerostar (562), are also on the market.

The Lincoln Town Car (915), Nissan's Maxima (801) and GM's Corvette (796) have been the best-selling imported cars.

Each of the Big Five sells cars and trucks. Other truck makers include Kenworth, Mercedes-Benz and Dina Camiones.

MEXICAN VEHICLE SALES

	Aug. 1991	Aug. 1990	8 mos. 1991	8 mos. 1990
Volkswagen	11,078	12,660	102,906	95,025
Nissan	11,324	11,484	84,063	73,943
Ford	9,565	10,666	81,217	55,973
General Motors	7,727	6,721	76,407	60,647
Chrysler	8,933	3,699	68,396	55,254
Total Big Five*	**48,627**	**45,230**	**412,989**	**340,842**
Other truck makers	**1,539**	**1,200**	**11,442**	**7,576**
TOTAL	**50,166**	**46,430**	**424,431**	**348,418**

*Includes imports
Source: Mexican Automotive Industry Association

Clean air rules renew interest in natural gas

Race is on to bring vehicles to market

JACK KEEBLER
Engineering Editor

Natural gas was the Rodney Dangerfield of alternative motor fuels. It just couldn't get any respect.

But the 1990 Clean Air Act requires clean-fuels fleets in 22 highly polluted urban areas in the 1998 model year.

The result is a multimillion-dollar engineering race among makers — particularly those with lots of fleet business — who hope to be the first to market a new generation of vehicles powered by natural gas.

The long-range carrot, according to projections by the American Gas Association, is the roughly 4 million natural gas vehicles that will be purchased by 2005 in response to the Clean Air Act's provisions. But there is also a short-range carrot. That is the million-dollar funding by natural gas consortia that is creating natural gas demonstration fleets.

In addition, last year's Persian Gulf crisis emphasized the fragile nature of the petroleum supply — and the high cost of keeping foreign oil flowing. Natural gas is also about 30 percent cheaper than gasoline.

But most Asian and European makers say they are cool toward the fuel because their smaller sedans will not accommodate fuel storage tanks that are large enough to give their cars a practical range. And several foreign makers also mention customer fears associated with refueling as a reason for little development activity on compressed natural gas vehicles.

"It really scares people to refuel them," said a Volvo Cars of North America spokesman. "They have relatively poor range. And the weight of the tanks is substantial. In an era in which we're all trying to reduce weight, that's not a particularly attractive characteristic."

The 1990 Clean Air Act requires that fleets of 10 or more vehicles must be able to run on clean alternative fuels if the vehicles are refueled at a central location and if they are located in one of 22 urban areas that have not have met ozone requirements.

Fleet operators are required to start purchasing those vehicles in the 1998 model year, when they replace their older vehicles. The only exclusions are emergency, rental, demo, off-road and privately garaged vehicles.

GM TAKES AN EARLY LEAD

General Motors — and specifically GMC Truck Division — appears to be the farthest ahead on production-line-built natural gas vehicles.

In July, GMC Truck announced that it had a contract for 1,000 of the vehicles from a consortium of natural gas utilities in Texas, Colorado and California. Production of compressed natural gas powered GMC C2500 pickups with 5.7-liter V-8 engines is scheduled to begin April 1, 1993, a GMC spokeswoman said.

Before that date, GMC vehicles will be shipped to PAS Inc., a Troy, Mich., engineering firm, for installation of the CNG storage tanks and fuel system.

At the Los Angeles briefing announcing the GMC effort, representatives of California's three major gas utilities said the demonstration fleet is funded by a $935,000 engineering and manufacturing grant. The three-phase grant will cover initial design, engineering of the natural gas fuel system, engine development and emission testing.

GMC plans to build as many as 3,000 of the dedicated natural gas vehicles in the 1992 model year. The conversions will meet all the federal safety standards required of gasoline-powered vehicles. And unlike regular conversions performed by outside companies, the GMC trucks converted by PAS Inc. and later factory-built natural gas trucks will be warranted by GM and serviced by GMC dealerships.

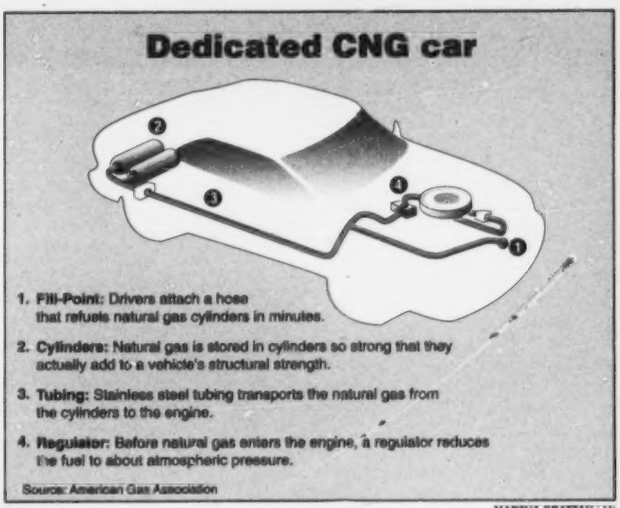
In a separate $40 million consortium program announced last February, General Motors' Truck & Bus Group and the Gas Research Institute agreed to begin engineering and product development of GM light-duty and medium-duty trucks with 5.7-, 7.0- and 7.4-liter V-8 engines powered by compressed natural gas.

FORD HAS BIG PLANS

Ford Motor Co. also has big plans for compressed natural gas vehicles. Chairman Harold A. Poling told the company's stockholders at the annual meeting last May that by "mid-1992, we'll have a 100-unit test fleet of CNG pickup trucks for customer evaluation." The next step in the Ford pilot process "toward a production vehicle" is the production of an additional 200 to 600 trucks by late 1993.

According to Roberta Nichols, Ford's manager of electric vehicles and external associations, up to half of the 100 Ford pickups

see CNG, 18


Dedicated CNG car
1. Fill-Point: Drivers attach a hose that refuels natural gas cylinders in minutes.
2. Cylinders: Natural gas is stored in cylinders so strong that they actually add to a vehicle's structural strength.
3. Tubing: Stainless steel tubing transports the natural gas from the cylinders to the engine.
4. Regulator: Before natural gas enters the engine, a regulator reduces the fuel to about atmospheric pressure.
Source: American Gas Association
MARTHA GRATTAN / AN

Greg Pokriefka, senior project engineer for ANR Pipeline Co. in Detroit, refuels a compressed natural gas-fueled car. The fill-point for CNG-powered vehicles is usually located underneath the hood.

Association touts natural gas as cheap, plentiful, patriotic

Buy American. That's what the backers of compressed-natural-gas vehicles want the industry to do.

Compressed natural gas is a domestic resource, and the United States has plenty of it. Officials of the natural-gas industry claim there is a 50- to 60-year supply at current consumption rates just by tapping conventional resources.

And the price is right, gas officials say. The cost per mile driven is about 60 percent of the cost of unleaded regular gasoline.

A good domestic supply, a reasonable price and significant emissions benefits are just three strong reasons why vehicle makers are spending time and money sorting out the advantages and disadvantages of natural-gas-powered vehicles.

The Persian Gulf crisis helped to underscore the fragile nature of the foreign petroleum supply. Natural gas, by contrast, is in greater supply than oil in the United States.

But what happens if large numbers of natural-gas vehicles are produced? Would increased consumption by motor vehicles quickly chip away at the reserve?

"In our most optimistic projections, we see about 3 million natural-gas vehicles on the road by the turn of the century," said Julie Stewart, an American Gas Association spokeswoman.

"As for the reserve, 8 million to 10 million vehicles would consume about 1 trillion consumption is about 19 trillion cubic feet per year. So 10 million vehicles would increase consumption by 5.3 percent."

Compared to established fuels such as gasoline and diesel, natural gas is about 30 to 40 percent cheaper per mile traveled. Aftermarket costs for converting gasoline vehicles to compressed natural gas run from about $2,500 to $4,000, depending on the sophistication of the conversion and the size of the storage tanks.

Natural gas also may offer large emissions benefits with simpler fuel systems and essentially no emissions-producing refining process.

Jeff Alson, assistant to the director of the Emission Control Technology Division of the EPA, thinks highly of compressed-natural-gas vehicles for several reasons.

"CNG is a very clean fuel," he said. "Roughly 85 to 95 percent of the hydrocarbon emissions from these vehicles is low-reactivity methane. Methane is a fairly potent global-warming gas. But from an ozone-production standpoint, it is near zero photochemically."

Alson said natural-gas vehicles have two other important advantages from an emissions perspective.

First, even when the emissions-control system fails, the exhaust emissions are still fairly environmentally benign.

And there are no evaporative emissions from their sealed high-pressure fuel tanks.

natural gas produce the fewest reactive compounds of any of the current alternative fuels.

In addition, compressed natural gas has a high octane rating of about 130, compared to about 94 for the highest-octane gasoline. That means compression ratios as high as 15 to 1, which allow higher operating efficiency.

Natural gas is safe in a properly engineered vehicle. According to the Gas Research Institute, there have been no fatalities, burn accidents or other serious injuries associated with compressed natural gas in 430 million miles of natural-gas-vehicle operation.

And importantly, a supply infrastructure is already in place. About 1.2 million miles of underground supply lines criss-cross the United States. But there are few filling stations. The installation cost of a natural-gas filling pump is high. Industry experts estimate the cost at $250,000. (An M85 methanol pump costs about $25,000 to $30,000.)

Natural gas is being sold at a limited number of Amoco, Shell and Unocal stations.

Long-range, natural-gas companies say that private homes might be fitted with natural-gas compressors for filling the family vehicle. The units would cost $2,500 to $3,000 plus an installation cost of $800 to $1,500. Users might be able to pay for the compressor on an installment plan as part of their monthly gas bill.

About 1,000 of those home units have been

with the equivalent of 10 gallons of gasoline takes about five hours. Fast-fill public pumps, which operate at higher pressures, reduce that to about five minutes.

On the negative side, emissions of hydrocarbons (mostly unburned methane) are relatively high. The vehicles will probably need a different type of catalyst to meet future regulations for hydrocarbon and oxides of nitrogen emissions.

But perhaps the biggest stumbling block is fuel storage. To carry sufficient amounts of the gas for reasonable range, vehicles must be fitted with large, heavy pressurized tanks (about 124 cubic feet of natural gas equals one gallon of gasoline in energy content.)

That limits current natural gas vehicles to extra-large sedans and trucks.

Adding to the range problem is the lack of an extensive public refueling station network. There are only 325 to 350 public refill stations in the United States.

Opponents say consumers would be nervous about handling high-pressure fuel lines and driving with storage pressures of 3,600 pounds per square inch in the fuel tank. Of course, most makers say their tanks are capable of withstanding up to four times normal storage pressures.

And finally, dual-fuel vehicles suffer a 10 to 15 percent loss in power. Because the fuel enters the combustion chamber as a gas, it partially displaces the incoming air charge. That reduces the amount of oxygen available

Transfusions could quickly recharge batteries

EDWARD LAPHAM
Managing Editor

TOKYO — Electrolyte transfusions may be the quick-charge answer for electric vehicles powered by lead-acid batteries, according to a backer of the Los Angeles Electric Vehicle Initiative.

John Samuel, director of Clean Air Transport AB, the Swedish company that plans to sell electric vehicles in Los Angeles in 1993, said his company has examined other battery types and can use them when they are completely developed but the lead-acid variety remains the most cost-effective, despite quick-charge limitations that restrict use.

"A series of service stations that can quickly exchange battery electrolyte might be the most feasible way to do quick charges without increasing the cost of the vehicle," Samuel said.

Samuel and a prototype of the LA301 — along with several Los Angeles officials — were at the International Automotive Design stand at the Tokyo Motor Show. IAD built the four-door prototype at its studio near Worthing, England.

Clean Air Transport, which won a competition to supply vehicles to Los Angeles, and officials of the Los Angeles Department of Water and Power will show the car in Los Angeles for the first time Thursday.

The LA301 is a hybrid unit that includes a 45-horsepower DC motor plus a fuel-injected, four-cylinder internal combustion engine that burns reformulated gasoline with a pre-heated catalytic converter.

Clean Air Transport said the vehicle can travel 60 miles in the all-electric mode, and the auxiliary engine extends the range to 150 miles.

The engine kicks in if the lead-acid batteries are more than half discharged or if the vehicle speed is more than 30 mph.

Samuel said the vehicle will go on sale in the United States in 1993, although the company has yet to settle on a retail distribution system. The projected retail price will be $25,000 in 1991 dollars, he said.

The LA301 prototype is powered by a DC motor and four-cylinder engine.

Samuel's experience with hybrid electric vehicles dates back to the late 1970s when he was president of Electric Auto Corp. in Troy, Mich., which used research and development partnership funds to develop the Silver Volt.

The Silver Volt, based on the Chevrolet Malibu A-body wagon, was to have been produced in a factory in the Bahamas and sold primarily in Florida and Southern California.

Electric Auto Corp. and the Silver Volt project folded in 1982.

NOVEMBER SPECIAL

Two Color FLOOR MATS at a low, low price...

1,000 for only
~~Was $58.00~~
NOW $38.60

Order 5,000 or more and your company name and/or logo is custom imprinted at no charge. Order catalog #117.

Order Desk
(800) 422-3102

LAW Printing COMPANY INC
Since 1929
130 Lombard Street
Oxnard, CA 93030

CNG
Plentiful fuel gets new respect

continued from PAGE 16

will be placed with California gas utilities. They include Pacific Gas and Electric, Southern California Gas and San Diego Gas and Electric. The rest will go to other customers in the United States and Canada.

Nichols said the pickup trucks have been modified with an increase in compression ratio to take advantage of the fuel's higher octane. But there has been some power loss because of a loss in volumetric efficiency.

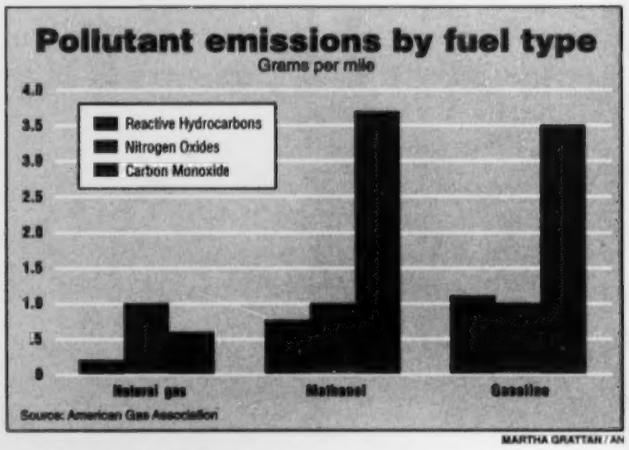
But the real challenge, according to Nichols, is oxides of nitrogen emissions. One of the engine's advantages is low carbon monoxide emissions.

"The present NOx reduction catalyst needs some CO to do its job," said Nichols. "So we're going to need a new catalyst. And the engine control module will also have to be re-programmed." She said engineers are "shooting for a minimum range of 200 miles in combined city and highway driving."

Nichols said that another important reason for renewed interest in natural gas is the change in the industry itself.

Until the last few years, gas suppliers were a loosely organized group consisting of the pipeline companies, producers and supply utilities. Today, essentially united under the American Gas Association and Natural Gas Vehicles Coalition banners, the industry is better coordinating its efforts — and funding — so it can be heard in company boardrooms and government hearings.

For example, last month the 1991 Natural Gas Vehicles Conference and exhibit brought together a number of interested parties, including elected officials and representatives of the Bush administration, automotive industry, natural gas vehicle equipment manufacturers and gas industry.



MARTHA GRATTAN / AN

Chrysler Corp. plans to produce 50 full-sized Dodge B-vans by March 1992 that will go into service in a test project sponsored by the U.S. Department of Energy and the General Services Administration. The value of the contract is $885,900.

In announcing the Chrysler contract, Energy Secretary James D. Watkins said, "Compressed natural gas and other alternative fuels are a key ingredient in our National Energy Strategy for reducing our dependence on unreliable sources of foreign oil."

By late 1992 or 1993, about 2,000 of the Dodge vans will be built at a shop near the plant in Windsor, Ontario. And by 1994, the plan is to build production CNG vehicles on line.

> "Compressed natural gas and other alternative fuels are key ingredients in reducing our dependence on foreign oil."
>
> JAMES WATKINS
> ENERGY SECRETARY

JAPANESE TIGHT-LIPPED

Most Japanese vehicle makers are quiet about their work on natural gas. Requests for information from Japan by the public relations departments of several large U.S. importers were unanswered.

Toyota Motor Corp.'s natural gas research began in 1984. The company claims its research is addressing the relatively high emissions of methane and reductions in the weight of the pressurized storage tanks.

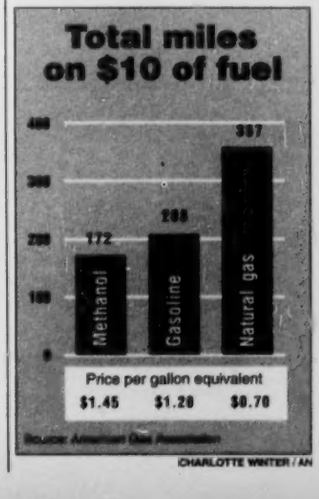
Nissan Motor Co. Ltd. is funding a five-year alternative-fuels research project at the University of Toronto. According to Nissan, the "prime target" of the $250,000 program is the refinement of natural-gas-powered engines and their fuel systems. The agreement is between Nissan Canada Inc. and the University of Toronto.

Isuzu Motors Ltd. released information last November on a joint development effort with Tokyo Gas Co. The program produced a two-ton-payload Elf truck powered by a converted 3.6-liter diesel engine fueled with liquid natural gas.

Isuzu reports one-seventh the emissions of carbon monoxide and one-twentieth the emissions of nitrogen oxides produced by a diesel engine. Hydrocarbon mass amounts were the same as a diesel engine, but were of less reactive types that produce little ozone.

Industries that use light trucks for delivery services are already experimenting with the fuel.

A Federal Express test fleet has been set up under the auspices of the California South Coast Air Quality Management District. In September 1989, United Parcel in New York converted 10 delivery vans to natural gas and is operating those vehicles in Brooklyn. And last April the company announced a two-year test project in Washington involving three of its vans.



CHARLOTTE WINTER / AN

"What would it cost for the best automotive clipping service in America?"

"About a dollar a day."

For a FREE sample, call (800) 231-8179.

Established 1919
NATIONAL SYSTEM INC.
THE CALL IS FREE. THE INFORMATION COULD BE PRICELESS.

Most dealers opt to service Peugeot

JIM HENRY
Staff Reporter

NEW YORK — Peugeot dealers had until last Friday to decide whether to drop the franchise entirely and get nothing or to accept a one-time payment from Peugeot Motors of America to stay on and sell parts and provide service.

Peugeot announced in August that it had stopped importing new cars to the United States.

The company is offering dealers $1,000 for each car sold between Jan. 1 and Sept. 30 of this year if they continue to handle parts and service for three years.

Peugeot spokeswoman Kim Derderian said that by the middle of last week, 106 of Peugeot's 151 U.S. dealers had accepted the company's offer.

Peugeot sales through September were 3,263, an average of about 22 cars per dealer. That would be an average settlement of $22,000 per dealer.

Peugeot dealers remain unhappy with the decision to halt imports but are "fairly comfortable" with the settlement offer, said Gary Reynolds, chairman of Peugeot's dealer council and owner of Reynolds' Garage and Marine Inc., which is located in Lyme, Conn.

Reynolds, one of Peugeot's 32 exclusive dealers, said he will accept the offer but is also trying to acquire another new-car franchise.

Besides agreeing to stay on to sell parts and provide service, dealers who accept the offer also have to release Peugeot and its parent companies from any legal liability, Derderian said.

Eric Chase, a Roseland, N.J., attorney who represents many dealers, said he didn't know of any Peugeot dealers who had sued the company.

"For many dealers with other franchises or who only sold one or two Peugeots a month, this is probably not a big deal at all.

"For some people," Chase continued, "they're losing their livelihood," he said.

Derderian said Peugeot will offer rebates on parts purchases starting in 1992.

Infiniti satellite link aimed at training

ATLANTA — Infiniti dealers now can receive company news updates, sales training and service training through a private satellite network that includes one-way video capabilities.

The $3 million VSAT network links more than 90 U.S. sites including all Infiniti dealerships, regional offices, Nissan regional offices and Nissan Motor Corp. in U.S.A.

"Using video we can expand our sales and service training programs," said William R. Bruce, Infiniti general manager.

U.S. VEHICLE TRADE
(x $1,000)

Country	Trade	2nd Qtr. '91	2nd Qtr. '90	Annualized trade July '90-June '91	Annualized trade July '89-June '90
Japan	from U.S.	$ 138,380	$ 141,679	$ 579,456	$ 455,421
	to U.S.	4,604,525	4,943,599	21,818,352	21,434,183
Canada	from U.S.	2,220,839	2,448,966	6,873,483	8,030,677
	to U.S.	5,397,010	5,415,251	18,339,329	18,863,953
Germany	to U.S.	1,009,671	1,525,667	4,967,900	5,424,770
S. Korea	to U.S.	262,147	290,925	1,149,370	1,070,377
Sweden	to U.S.	286,354	433,166	1,209,335	1,627,495
Mexico	to U.S.	643,094	565,741	2,765,082	1,419,093
Yugoslavia	to U.S.	0	3,742	6,438	3,901
United Kingdom	to U.S.	134,768	236,006	729,818	896,855
Italy	to U.S.	42,912	74,097	235,903	275,371
France	to U.S.	2,636	3,490	34,743	9,064
Brazil	to U.S.	24,268	11,683	71,946	190,473
Others	from U.S.	1,121,690	794,266	3,155,989	2,805,909
	to U.S.	173,545	140,252	728,733	492,961
Car and truck total	from U.S.	3,480,897	3,384,959	10,608,928	11,292,007
	to U.S.	12,580,928	13,643,619	52,056,949	51,708,497
VEHICLE TRADE BALANCE		(9,100,031)	(10,258,660)	(41,448,021)	(40,415,536)
Car total	from U.S.	2,750,734	2,860,708	8,696,343	9,529,682
	to U.S.	10,829,549	11,557,161	45,196,899	43,801,398
CAR TRADE BALANCE		(8,078,815)	(8,696,453)	(36,500,556)	(34,271,716)
Truck total	from U.S.	730,163	524,251	1,912,585	1,762,325
	to U.S.	1,751,379	2,062,458	6,860,050	7,907,099
TRUCK TRADE BALANCE		(1,021,216)	(1,538,207)	(4,947,465)	(6,144,774)
TOTAL U.S.	from U.S.	105,742,000	98,577,300	406,208,400	378,623,400
Merchandise trade	to U.S.	119,061,000	120,678,300	489,912,100	481,239,200
U.S. TRADE BALANCE		(13,319,000)	(22,101,000)	(83,703,700)	(102,615,800)

Auto trade picture brightens

LINDSAY CHAPPELL
Staff Reporter

The balance of automotive trade between the United States and the rest of the world showed frail signs of improvement at the end of the second quarter.

Key factors in the shift are steep declines in imports from Germany and other European countries, additional displacement of Japanese imports by U.S. transplant factories and a modest increase in U.S. truck exports.

The value of cars and trucks imported from Japan was $339 million less in the second quarter than it was a year earlier.

At the same time, Japanese-owned assembly plants in the United States produced an additional 59,000 vehicles.

Although the overall effect on the trade deficit is small, the change comes at a time when U.S. automakers continue to express frustration with Japanese importers and renewed hopes for U.S. exports.

According to government trade data, which lags several months behind current activity, the United States imported $12.58 billion in cars and trucks from foreign factories during the three months ended June 30.

That contributed to a $1.16 billion improvement in the nation's automotive balance of trade. During the second quarter of 1990, importers brought in $13.64 billion worth of vehicles.

But the U.S. automotive trade deficit was still running at an annual rate of $41.4 billion a year — $1 billion higher than in 1990.

Exports of U.S.-made vehicles rose $96 million for the three-month period, to $3.48 billion. Truck exports rose $206 million. Car exports declined about $110 million.

The glimmers of good news brightened an otherwise gloomy report. While imports from every major auto-producing nation except Mexico were down, so were U.S. exports to key markets including Canada and Japan.

The figures appear to reflect a sluggish car market in and out of the United States as much as any competitive positioning by U.S. producers.

Imports from Germany, Sweden, France and the United Kingdom plunged significantly in the second-quarter, reflecting the sinking fortunes of Europeans in the U.S. market.

But imports from Mexico rose 13.7 percent over the second quarter of 1990. For the 12 months ended June 30, Mexican factories nearly doubled their year-earlier shipments.

A key factor has been Ford Motor Co.'s production increase at its Hermosillo plant, which builds Ford Escort/Mercury Tracer.

Japanese could take 30% of U.K. market, study says

VAUGHAN FREEMAN
Special Correspondent

LONDON — Japanese automakers will capture 30 percent of the British market before the end of the 1990s, up from a voluntary 11 percent ceiling now, according to a study issued last week.

The report, issued by the securities firm of Albert E. Sharp Ltd., makes the gloomiest reading yet for Ford of Britain, General Motors/Vauxhall and Britain's own Rover Group.

Just 10 days ago, Ford warned trade union leaders that the automaker expected Japanese manufacturers to hold a 28 percent share by 1999.

According to the Sharp forecast, Japanese producers are on the threshhold of breaking into the all-important company car market. That market accounted for half the 2 million new cars sold last year in Great Britain.

Sharp says Nissan and Toyota will both be looking for 10 percent shares in the British market, while Honda also will become a major player.

"The real concern has to be for those manufacturers with considerably lower market shares who simply could not afford to give up several percentage points," said Del Barrett, who is the author of the report.

Nissan, Honda and Toyota plants in Britain could be producing as many as 600,000 cars a year between them by 1995, or more than 50 percent of present domestic output, Barrett added.

Ford Europe opens recycling test plant

FRANKFURT — Ford of Europe began operating a $54,000 pilot plant last month inside its Cologne, Germany, factory to develop technology for dismantling cars and removing recyclable components and fluids from vehicles.

Ford said lessons learned at the plant may lead to design changes in current and future models that would make it easier to recycle parts. The techniques developed also will be described in a manual for eventual use by the scrap industry. But Ford has no plans to open a recycling factory in Europe or in the United States.

This month Ford also began collecting scrap plastic vehicle parts from dealers in the Cologne area. The parts will be consolidated at the plant, sorted and passed to suppliers who will study their recyclability.

— *Diana T. Kurylko*

LOOKING FOR CUSTOMERS IN ALL THE WRONG PLACES?

Introducing 777 FTS

FTS is a computer simulated slot machine designed exclusively for the automotive industry

Determines Actual Floor Traffic!

Takes the Guess Work out of Advertising!

Creates Customer Goodwill!

ACT NOW AND SAVE $500.00

Networkers 1101 W. Lincoln Ave. #115 Anaheim, CA 92805

714-774-3234 800-247-4530

DISTRIBUTOR OPPORTUNITIES AVAILABLE

PROFESSIONAL SOFTWARE

SHOWROOM LEASING

The Finest Lease Program Available in the U.S. Today!

An Automated Program With Built-in Rates, Residuals, & Charts For The New Car Dealer or Independent Company Using Brokered Funders.

Includes Special Rates & Residuals for GMAC "SmartLease"; Ford "Red Carpet"; GECAL, UBVL & Bank One "Target Vehicles"!

• Sells The Leasing Concept • 30 Funders Available • Interfaces With PC CARBOOK

A.L.C.

$289.00 per month! (Includes Monthly Updates)

Call For Our Brochure

AUTOMOTIVE LEASE CONSULTANTS LTD • Grandview, Texas • 1 (800) 658-7234

WRITE-OFF

Big 3 must erase billions

continued from PAGE 1

the future. Besides health care, those benefits also include life insurance and legal assistance.

Initially, the change covers only U.S. employees and retirees. It will extend to foreign employees and retirees after 1995, according to a benefits consultant.

Automakers and other public corporations will have to decide whether to account for the billions in new liabilities at one time, or to spread the accounting change over as much as 20 years.

"We are looking at the alternates and trying to decide the best way to handle it," Stempel said. "We hope that the analysts understand it."

In addition to the big switch-over charge, the companies' reported earnings will be depressed in future years as retirement liability grows. Companies will have to expense millions of dollars annually in a non-cash "interest expense" on the liability.

The change will be reflected only in public financial statements. It makes no difference in the companies' income as reported to the Internal Revenue Service.

Ford Chairman Harold Poling says his company is weighing taking a big hit now versus amortizing the cost over years. Either way, Poling says rising health care costs and the new rule from the Financial Accounting Standards Board will hurt Ford's financial position.

"It's a very serious problem for the competitiveness of the auto industry in this country," Poling said.

Health care makes up the great bulk of retiree benefits. For years, automakers have been trying to negotiate reductions in health-care costs.

"We need some form of cap on the expenditures," Poling says.

Companies are likely to take a long hard look at reducing retiree health care costs.

John Beauchamp, practice director at The Wyatt Co., a benefits consulting firm, says almost every company is looking for ways to decrease employer contributions to retiree health plans. "It's going to be tough for future retiree programs," Beauchamp said.

The new accounting rule is FASB No. 106, issued in December 1990. Public companies will have to use it for any fiscal year beginning after Jan. 1, 1993. It falls most heavily on companies, such as the domestic automakers, that have large work forces and large bodies of retirees.

> It's tough, after all these years of accounting for it on a pay-as-you-go basis, to make the change.
>
> **ROBERT STEMPEL**
> GENERAL MOTORS

Because of the rule, International Business Machines Corp. last spring took a $2.3 billion charge and reported its first quarterly loss.

Here's how the change is being handled at each of the Big 3:

GENERAL MOTORS

GM has said that it does not plan to adopt Rule No. 106 earlier than required. The company has not decided whether to take the big hit or spread it over a number of years.

GM's new one-time liability could easily exceed $10 billion. Stockholders' equity as of Sept. 30 was $28 billion.

In 1990, GM paid $1.2 billion for non-pension benefits for about 345,000 retirees, roughly $3,496 per person.

"In addition to all those other exciting things we are dealing with, like a recession and trying to get things back on track, we've got that great little Rule 106," Stempel said, dripping sarcasm.

He said GM will probably make a provision for the new accounting standard when it releases calendar-year earnings.

Even though GM won't have to set aside any cash, Stempel is concerned about how the numbers will be perceived.

"My concern is when you show big numbers in your balance sheet, and you account for them, people start to raise questions about them, as they should," Stempel said. "It's tough, after all these years of accounting for it on a pay-as-you-go basis, to make the change."

Analyst Philip K. Fricke of Prudential Securities Inc. said he wouldn't dare venture a guess about GM's potential liability: "They have an army of actuaries working on that, and they don't know yet," Fricke said.

Early signs show hope that investors and analysts understand, Stempel said. Companies that have already announced the impact of the new rule on their balance sheets have seen "nary a ripple" from investors.

FORD

Ford estimates its initial liability at between $5 billion and $9 billion.

In addition, Ford estimates that it will have to expense between $200 million and $1 billion a year in new liabilities. Most of that is for the equivalent of interest that would accrue if the retirement benefit money had been actually put into a fund.

Ford's post-retirement health-care costs rose from $386 million in 1988 to $416 million in 1989 to $460 million last year — a hike of 19 percent in two years.

Ford Chairman Poling says the company is weighing the pros and cons of a big hit versus amortizing the cost over years. Either way, Poling says rising health care costs and the new FASB rules will hurt the company's financial position.

Health-care costs are "a very serious problem for the competitiveness of the auto industry in this country," Poling said.

Gary Brantz, a health care actuary with the management firm Towers Perrin, says the new rule will have "a dramatic impact to earnings, but it may be a healthy exercise because it will force companies to address the health care issue."

Said Poling: "We need a cap on the expenditures."

The company is negotiating with the UAW for a spending cap for hourly retirees and has taken steps to limit some of its liability on the salaried side. Where Ford used to pick up the entire 20 percent co-payment for its Medicare-eligible salaried retirees, said an executive at Blue Cross Blue Shield of Michigan, it recently instructed the plan to pay only the 10 percent Ford is obliged to pay.

CHRYSLER

Chrysler has not decided whether to take a one-time hit or amortize the liability over several years.

Chrysler's preliminary estimates of its one-time liability range from $4 billion to $6 billion, according to the company's third-quarter financial statement.

"The low estimate assumes Chrysler can negotiate various changes in its benefit levels," the company said in its financial statement. "The high estimate assumes no changes are achieved, which Chrysler believes is unlikely."

Chrysler continues to seek ways to reduce the rising costs of medical expenses and insurance plans. AN

Big book change

A new accounting rule forces corporations to account for a huge liability for future retirement benefits.

GM:

- 415,000 U.S. employees*
- 345,000 U.S retirees & surviving spouses*
- Estimated liability: over $10 billion

FORD:

- 150,000 U.S. employees
- 118,400 U.S. retirees & surviving spouses
- Estimated liability: $5 billion to $9 billion

CHRYSLER:

- 90,000 employees worldwide
- 68,000 retirees, not including spouses
- Estimated liability: $4 billion to $6 billion

** Not including Electronic Data Systems Corp. and GM Hughes Electronics Corp.*

CLEAN AIR

Northeast may join 'California club'

continued from PAGE 1

"It adds another dimension to what we're doing. And, to be honest, we don't need another dimension right now," he said.

Also true to form, environmentalists were unsympathetic.

"This is an industry with a record of being able to meet tough standards," said Bill Becker, the Washington-based executive director of two interested groups, the State and Territorial Air Pollution Program Administrators and the Association of Local Air Pollution Control Officials.

"I don't know whether this is intentional, but they typically lay out the worse-case scenario before the fact and then are able to do what was asked cheaper and faster than they ever thought," Becker said.

"It really bugs me when they say that the Northeast doesn't have California's air pollution problems so they don't need California's standards. Some areas do have serious pollution problems, and other areas want to make sure they never do," he said.

Becker said the agreement signed last week could speed up the legal process for the states interested in adopting the California rules.

A 1977 provision added to the federal Clean Air Act allows other states to adopt the California standards instead of the less rigorous federal rules, provided they adopt the entire California program. Other states are not allowed to set unique standards.

States that fail to meet federal air pollution standards are under pressure from the government to demonstrate that they're doing something to clean up their air, and adoption of the California standards is seen as a simple solution to a complicated problem.

In some states, the legislature must act to adopt the California standards. Others have authorized a rulemaking body like a state department of environmental protection to act on its own.

Other states are debating the matter of who has the power to adopt California rules.

The New Jersey Division of Environmental Quality, for example, is exploring that legal issue, said spokesman George Klenk. New Jersey has scheduled a public hearing in Trenton on Thursday on a host of environmental proposals, including a draft of California-style standards.

Spokesmen for Ford Motor Co. and General Motors last week reiterated the industry stance that the California rules were devised for air pollution problems unique to California, and that the cost of exporting California rules to other states will outweigh the benefits. And there are easier ways to clean the air, they said, like getting heavy-polluting, pre-1975 cars off the road.

They disputed the states' claim that the emissions from gasoline-powered cars could be cleaned up for less than $200 per car. They put the price at more than $1,000 per car.

"The consumer is the guy that's going to get hurt, and the automobile industry is going to get hurt, and the infrastructure it's going to take to run this show is going to be huge," said John V. Dinan Jr., spokesman for GM's environmental activities staff.

Besides requirements for "low-emission," and "ultra-low-emission" vehicles, the California rules say that by 1998, at least 2 percent of a company's sales of cars and light trucks under 3,750 pounds have to be "zero-emission" vehicles. The figure would rise to 10 percent by 2003.

At the present state of the art, "zero-emission" means electric vehicles. If all the states in question adopted the California rules, automakers would have to sell — not just build — about 110,100 electric vehicles in 1998, compared to about 34,500 for California alone. The U.S. total would jump to 550,500 by 2003. The figures are based on annual sales of 15 million cars and light trucks. The rules call for financial penalties if the right model mix isn't reached.

"We'll never meet those standards, if we have to do it based on the mix in all those different states. From every point of view, it's impossible," said Don Buist, Ford director of auto emissions and fuel economy.

"Once you get outside Los Angeles, it's hard to see the benefits," he said. "It's hard for me to see the state of Maine, for instance, needing electric vehicles for air pollution."

The "memorandum of understanding" signed by the governors last week gives more momentum to a movement that formally started in 1989, when a coalition of eight Northeast states approved the California rules in principle.

New York and Massachusetts have already approved the new standards, and unless the manufacturers can change a lot of minds in public hearings presently going on, those states will likely adopt the California requirements.

"If I were a betting man, I wouldn't bet against it" in New York and Massachusetts, said Ford's Buist. The new rules would be phased in two years.

Automakers took some comfort in the fact that Connecticut, Rhode Island and Vermont asked for more time to study the memorandum that was signed last week, even though those states have already indicated that they are interested in joining the California club.

"Maybe some people are beginning to listen to what we've been trying to say all along," Buist said. AN

Report pushes plan to scrap old cars

WASHINGTON — A program to buy and scrap old, fuel-inefficient cars would reduce gasoline consumption and environmental pollution faster than higher fuel economy standards for new cars, says a new report.

Under the plan studied by DRI/McGraw-Hill of Lexington, Mass., owners of pre-1979 cars would be paid $700 to scrap their cars. Analysts said they think about one-third of the 25 million to 30 million pre-1979 cars would be turned in under the voluntary program.

The program would result in savings of about 5 billion gallons of gasoline in the first five years, about the same savings that could be expected under a 1996 fuel economy standard of 32 mpg, said analyst Bernard Campbell.

The program could be funded with a five-year, two-cent-a-gallon gas tax or a tax on new gas-guzzlers. Or automakers could fund it in return for credits against fuel economy requirements, Campbell said.

— *Max Gates*

incentives

INCENTIVE WATCH — CUSTOMER INCENTIVES

CONTINUING PROGRAMS

CHRYSLER CORP.

All programs expire Dec. 31. Finance rates in lieu of rebates start at 6.9 percent on minivans, 4.9 percent on other models.

In addition to the rebates on retail purchases listed here, Chrysler Corp. offers rebates under its Gold Key Plus Program. The rebates, which expire Dec. 31, are $250 to $2,000 on 1992 models and $150 to $1,975 on 1992 models.

1992 models

Chrysler Imperial, New Yorker Fifth Avenue LeBaron coupe, New Yorker Salon	$1,000
LeBaron sedan	$750
Dodge Monaco	$500
Dynasty	$1,500
Shadow conv.	$1,000
Shadow highline, Daytona, Spirit, Colt	$750
Shadow America	$500
Dodge Ram pickup (gas engine), Ram van conversion, Ramcharger	$300
Ram van and wagon, Dakota	$1,000
Ram 50	$750
Eagle Premier	$300
Talon, Summit	$1,500
Jeep Cherokee	$500
Comanche	$1,000
Wrangler	$750
Plymouth Sundance highline	$500
Acclaim, Laser, Colt hatchback	$500
Sundance America	$300

1990-91 models

Chrysler Imperial	$2,000
New Yorker Fifth Avenue and Salon, LeBaron sedan	$1,500
LeBaron coupe and conv.	$1,000
Dodge Shadow conv.	$2,000
Spirit, Monaco, Dynasty	$1,500
Daytona	$1,250
Colt GL, Shadow highline	$1,000
Shadow America, Colt	$700
Dodge Ran van conversion, Ram pickup (gas engine), Ramcharger	$1,500
Ram wagon, Ram van	$1,250
Dakota	$1,000
Ram 50	$750
Eagle Talon TSi, Premier	$1,500
Other Talon	$1,200
Summit 4-dr., Summit ES 3-dr.	$1,000
Summit base 3-dr.	$750
Jeep Cherokee, Grand Wagoneer	$1,500
Comanche	$1,000
Wrangler	$500
Plymouth Acclaim, Laser RS Turbo	$1,500
Other Laser	$1,200
Sundance highline	$1,000
Sundance America	$700
All awd minivans	$1,000
All 2wd minivans	$500

FORD MOTOR CO.

1992 models

Expires Dec. 3. In lieu of rebates, 4.8 percent loans on Probe, 7.9 on other Ford and Mercury; no finance incentive on Lincoln.

Ford Festiva, Mustang, Taurus	$500
Tempo*	$500
Thunderbird, Crown Victoria	$750
Escort GT and LX-E**	$750
Probe, Taurus SHO	$750
Aerostar*	$500
F series	$500
Ranger	$750
Bronco	$1,000
Mercury Sable	$500
Topaz*	$500
Tracer LTS*	$750
Capri, Cougar, Grand Marquis	$750
All Lincoln	$1,000

*Tempo, Topaz and Aerostar — $1,000 or 7.9 percent loan in Northeast

**Escort Pony and LX and Tracer sedan and wagon — $560 or 7.9 percent loan in Central and Great Lakes regions.

1990-91 models

1990-91 Ford models and 1991 L-M models, expires Dec. 3. In lieu of rebate, 4.8 percent loans on Festiva and Probe, 7.9 percent on other Ford and Mercury. No finance incentive on Lincoln.

Ford Escort (except GT), Mustang, Taurus, Tempo, Thunderbird	$400
Escort GT, Taurus SHO	$600
Festiva, Probe	$1,000
Aerostar*	$400
Ranger, F series, Econoline E-150 (except RV)	$400
Bronco, Econoline E-150 (RV)	$1,000
Mercury Tracer (except LTS), Topaz, Sable, Cougar	$400
Tracer LTS	$600
Capri	$1,000
All Lincoln	$2,000

*Aerostar — $1,000 or 7.9 percent loan in Northeast.

GENERAL MOTORS

Expires Feb. 4. Finance rates in lieu of rebates start at 2.9 percent for Buick, Oldsmobile and Pontiac; 6.9 percent for Chevrolet and GMC.

1992 models

Buick Skylark*	$250-750*
Century, Regal*	$250-1,000*
Riviera	$2,000
Chevrolet Caprice	$1,000
Geo Metro and Storm	$750
Geo Prizm, Camaro, Beretta, Lumina	$500
Cavalier	$300
G van, S/T Blazer, Lumina APV	$1.000
Geo Tracker, Astro, S/T pickup	$750
C/K pickup	$500
GMC G-van, S15 Jimmy (except Typhoon)	$1,000
Sonoma (except Cyclone, GT), Safari	$750
Sierra (except Crew Cab)	$500
Oldsmobile Cutlass Ciera (national)	$1,000
Regional programs, various models	$500-2,000
Pontiac Trans Sport	$1,000
Grand Prix	$750
LeMans, Firebird	$500

*Based on option package selected.

1991 models

Cadillac All models except Allante (expires Dec. 31)	$2,000
Chevrolet Caprice	$1,000
Geo Metro, Camaro	$750
Geo Storm and Prizm, Beretta, Lumina	$500
Cavalier, Corsica	$300
V Blazer, Suburban, G-van, S/T Blazer, Lumina APV	$1,000
Geo Tracker, Astro, S/T pickup, R/V and C/K pickups	$500
GMC V Jimmy, Suburban	$1,500
S15 Jimmy, G-van, Safari	$1,000
Sonoma (except Cyclone)	$750
Sierra, R/V pickups	$500
Oldsmobile - regional programs, various models	$500-2,000
Pontiac Trans Sport, LeMans, Firebird	$1,000
Grand Prix	$750

HYUNDAI

48 states (expires Jan. 3)

Sonata with SE pkg. (1991), Excel with SE pkg. (1991)	$500
Scoupe (1991), Excel base (1991)	$750
Other Excel (1991), Other Sonata (1991)	$1,000
California only (1991 models, expires April 2)	
Excel, Scoupe	$750-1,000
Sonata	$1,000-1,500
All states (1991 models, expires Jan. 3)	
All 1991 models if trade is a 1986-90 Hyundai	$1,000

MAZDA (car rebates expire Nov. 4; truck rebates expire Dec. 3)

RX-7 (1991)	$2,000
626 (1991-92)*	$1,000
Navajo (1991)	$1,000
Trucks (1992)	$1,000
MX-6 (1991-92)	$800
Protege (1990-91)*	$800

*Or 5.9 percent financing

ROLLS-ROYCE/BENTLEY (1991 models; expires Dec. 31)

All models — Company pays U.S. luxury tax

SUBARU (expires Nov. 4)

Loyale 4wd (1991)	$500
Legacy (1991)	$1,200
XT, XT6 (1991)	$2,000

INCENTIVE WATCH— DEALER INCENTIVES

NEW PROGRAMS

VOLVO (1991 models; expires Dec. 31)

240 series	$1,500
740 series	$1,750-2,500
940 series	$1,500-2,500
780 coupe	$2,500

CONTINUING PROGRAMS

ACURA (1991 models, expires Jan. 3)

Legend sedan	$2,500
Legend coupe	$3,000

ALFA ROMEO (expires Dec. 31)

164, 164L automatic (1991)	Up to $200 per car monthly in floorplan aid

GENERAL MOTORS

Chevrolet (expires Feb. 4) Caprice (1992)	$250-800, quota
Camaro (1992)	$300-750, quota
Corvette ZR-1 (1992)	$2,000
Other Corvette (1992)	$1,000
Corvette ZR-1 (1991)	$3,000
Other Corvette (1991)	$2,000
Cadillac Allante (1991) (no expiration date)	$7,500 on first sale, $8,500 on additional sales
Pontiac Sunbird	$300

CHRYSLER CORP. (expires Dec. 31)

Eagle Talon (base, 1991-92)	$750
Jeep Cherokee Laredo (1991-92)	$1,000

HONDA

Civic 4-dr. sedan	$400

HYUNDAI (California only, 1991 models, expires Nov. 30)

Excel	$300
Sonata	$400
Scoupe	$500

Payment is for models purchased from Hyundai Motor America.

ISUZU (1991-92 models, unless otherwise noted; expires Dec. 31)

Cars*	$800-1,800
All pickups*	$1,000-1,500
4x4 pickups (bonus, 1990-91)	$500
Trooper*	$1,500-1,800
Rodeo*	$00-500

*Based on number sold

LOTUS (1991, no expiration date)

Elan	$5,000
Esprit Turbo	$11,000-15,000

MAZDA (1991 models; expires Nov. 4)

929	$2,000
323 (low-volume dealers)	Up to $500

NISSAN (all expire Nov. 4, unless otherwise noted)

All 1991 and 1992 models	$200 after reaching quota

1991 models

Sentra	$200
240SX	$600
Maxima	$800
Stanza	$1,800
300ZX (expires Feb. 2)	$2,500-3,500, quota
Pickups	$1,200
Pathfinder	$1,400

1992 models

Stanza	$1,000
Pickups	$900
Pathfinder	$600

PEUGEOT (no expiration date)

405	$5,000
505	$6,000

SUBARU (1991 models; expires Nov. 4)

Legacy	$100-1,600, based on number sold

SUZUKI (expires Dec. 3)

Swift (1991)	$700-1,000
Swift (1992)	$400-700
Sidekick (1991)	$500-1,000
Sidekick (1992)	$300-700

STERLING (no expiration date)

All models	$8,000*

*Or $3,000 if customer chooses 0 percent financing

TOYOTA (expires Nov. 4)

Corolla (1990-92)	$200-900, quota
Camry (1990-91)	$200-900, quota
Pickups	$200-1,300, quota

VOLKSWAGEN (No expiration date)

Passat (1991)	$1,500
Jetta, Fox, Golf (1991)	$500
All 1990 cars	$600-1,500

Volvo adds its 240 series to dealer rebate program

Volvo Cars of North America added the 240 series to its dealer incentive program for 1991 cars.

Volvo's program pays dealers $1,500 on sales of 240 sedan and wagons, $1,750 to $2,500 on 740 sedans and wagons, $2,500 on the 780 coupe and $1,500 to $2,500 on 940 sedans and wagons. The program expires Dec. 31.

Mitsubishi Motor Sales of America Inc.'s incentive programs for customers and dealers expired Oct. 31. The company had not announced new programs last Friday.

— *Arlena Sawyers*

GM to align engine activities

PHIL FRAME
Staff Reporter

DETROIT — General Motors' Central Foundry Division will become part of the Powertrain Division in 1992, completing GM's efforts to bring more coordination to its powertrain operations.

Central Foundry, now part of GM's Automotive Components Group, makes cast iron and aluminum powertrain and chassis parts.

The addition of Central Foundry to the Powertrain Division carries out the recommendations of an internal study made several years ago that showed GM needed to combine its engine, transmission and foundry operations to produce better powertrains, said spokesman Steve Gaut.

The Powertrain Division was formed 11 months ago when the former Engine Division merged with Hydra-matic, GM's transmission division. Before that, the engine activities of the Buick-Oldsmobile-Cadillac and Chevrolet-Pontiac-Canada groups merged to form the Engine Division.

The announcement that Central Foundry will become part of Powertrain came halfway through the move of Powertrain's headquarters from Brighton, Mich., to Pontiac, Mich. About 680 employees will be headquartered in Pontiac when the move is completed by the end of the year, Gaut said.

The merger of Central Foundry and Powertrain will begin in early 1992 and is expected to take about a year to complete, Gaut said.

LOANS

Rise in bankruptcies not fault of dealers

continued from PAGE 4

second most common reason was unemployment, which was reported by 15 percent of lenders, followed by divorce or separation, reported by 6 percent of the lenders.

The most common age of those filing for bankruptcy is 30 to 40, according to 81 percent of lenders. Fifteen percent said the 22-to-29 age group is the most common.

Eighty percent of the lenders said most bankrupts are married, and 60 percent said most are renters rather than homeowners.

While 67 percent of the banks surveyed reported that they have extended credit to someone who has declared bankruptcy in the past five years, more than 96 percent of those applications are denied by lenders.

The rise in bankruptcies is another sign of the troubled economy. According to the American Bankruptcy Institute, a record 1 million personal bankruptcies will be filed from July 1991 to July 1992.

According to the American Bankers Association, the average consumer installment loan granted in 1990 was $9,149, slightly less than the $9,412 average in 1989. The largest loan volume was in indirect auto loans, with an average amount of $10,781, up from $8,560 in 1989.

The Consumer Bankers Association survey was based on reports from 90 federally insured lenders within average assets of $6.8 billion. Their average indirect auto loan portfolio was $271 million as of June 30.

SAAB

Shifting resources to weak regions

continued from PAGE 6

other regions are Western, headquartered near San Francisco; and Central, based near Chicago.

The moves reduce the total number of regional employees from 93 to 70. But the number of district representatives who call on dealers will be increased from 50 to 55, with most of the increase in the South and West.

Saab is also adopting an "asymmetric" regional structure, with a heavier concentration of sales representatives in the South and West, where sales are thin and the parts and service workload is relatively light. The situation is reversed in the Northeast and mid-Atlantic, where sales are already pretty good and there's a greater demand for parts and service because of a higher population of Saabs.

Saab spokesman Steve Rossi said Saab in its present Northeast region has a 27.8 percent share of a competitive group of European import models. The share is 11.8 percent in the Mid-Atlantic; 11.7 percent in the Central region; 6.9 percent in the West; and 5.5 percent in the South.

Ford spends millions for paint shops

DEARBORN, Mich. — Ford Motor Co. plans to invest $350 million for paint facilities at two of its truck plants in the United States.

Construction began last week on a 240,000-square-foot paint facility adjacent to Ford's Michigan Truck Plant in Wayne, Mich. That paint plant will cost $185 million and is expected to open in 1993.

Ford also has applied for permits to build a 240,000-square-foot paint shop at its Norfolk, Va., plant. The $165 million facility could open by mid-1993.

The Wayne plant builds F-series trucks and the Bronco sport-utility. Norfolk builds the F series.

SCHEDULED PLANT CLOSINGS

Plant	Weeks down	Units lost/ week
CHRYSLER		
Bramalea, Ontario	11/4	
Dodge Monaco		380
Eagle Premier		1,005
FORD		
Dearborn, Mich.	11/4, 11/11	
Ford Mustang		2,800
Edison, N.J.	11/4	
Ford Ranger		2,800
Kentucky truck (Louisville)	11/4	
Ford heavy truck		1,000
Lorain, Ohio	11/4	4,300
Ford Thunderbird		
Mercury Cougar		
Oakville, Ontario	11/4	4,800
Ford Tempo		
Mercury Topaz		
St. Paul, Minn. (Twin Cities)	11/4	3,400
Ford F series		
Ford Ranger		
St. Thomas, Ontario	11/4	
Ford Crown Victoria		2,000
Mercury Grand Marquis		2,800
Wayne, Mich.	11/4	
Ford Escort		5,800
Wixom, Mich.	11/4	4,100
Lincoln Continental		
Lincoln Mark VII		
Lincoln Town Car		
Total U.S. car		17,000
Total Canada car		10,985
Total U.S. truck		7,200
Total units lost week of 11/4		35,185

Source: Automotive News Data Center

Mercedes may build 3 models in Soviet Union

DIANA T. KURYLKO
Staff Reporter

FRANKFURT — Mercedes-Benz AG said last week it is discussing the possibility of producing its current line of small and mid-sized models in the Soviet Union after the cars have been replaced in the rest of Europe.

In an unusual twist, the cars — the 190, 200 and 300 families — would not be badged as Mercedes, company officials said.

The talks with Soviet officials are in early stages and no decision is likely until 1996 or 1997, a Mercedes spokesman said last week.

"We are still producing our middle-range car and the compact class, and they are the only ones we could sell over there," he said. "Of course, the cars sold there would not have the star on the bonnet and would be very basic."

Mercedes acknowledged recently that a Soviet machine-tool collective had asked for licensing rights to the Gelaendewagen off-road vehicle. Those talks continue, the Mercedes said.

Mercedes already produces buses in the Soviet Union in partnership with vehicle maker VAZ.

Mercedes electric cars pace marathon

NEW YORK — Two battery-powered Mercedes—Benz sedans helped pace Sunday's New York City Marathon.

Based on the four-door 190 sedan, the two vehicles have a top speed of 70 mph and 93 miles of range at a steady 50 mph. Acceleration to 30 mph takes 13 seconds. Power is provided by a sodium-nickel chloride battery. The sides of the cars are lettered with "Mercedes-Benz Electric Research Vehicle — Zero Emissions."

Mercedes marked its eighth year as the marathon's automotive sponsor.

U.S. AND CANADA CAR AND TRUCK PRODUCTION

Vehicles are domestic unless noted. Vehicles are cars unless noted.

	Est. 10/28-11/2/91	Actual 10/21-10/19/91	Oct. Est.	Year 1/1-11/2/91	Year 1/1-11/3/90
LeBaron A	0	0	0	0	8,071
LeBaron J	850	628	2,151	21,281	44,740
New Yorker	800	1,123	4,110	9,132	33,014
Fifth Avenue	1,350	1,304	6,449	27,585	30,876
Imperial	300	282	1,348	7,552	16,507
Town & Country (trk.)	150	275	713	3,928	2,078
Total Chrysler	**3,450**	**3,982**	**14,771**	**69,479**	**135,286**
Horizon	0	0	0	0	4,327
Sundance	1,600	1,614	7,966	53,257	76,764
Acclaim	1,400	1,812	8,173	67,719	100,635
Voyager (trk.)	2,200	2,636	11,755	83,609	71,460
Voyager (Can. trk.)	2,035	2,654	10,676	93,403	84,663
Total Plymouth	**7,235**	**8,716**	**38,080**	**297,987**	**337,849**
Omni	0	0	0	0	4,078
Daytona	700	744	2,699	7,904	29,745
Shadow	1,900	2,113	9,219	59,529	84,370
Dynasty	2,200	2,176	10,132	100,611	101,954
Spirit	2,250	2,161	10,919	65,724	89,463
Monaco (Can.)	0	0	236	8,477	8,556
Caravan (trk.)	2,200	2,662	12,049	97,146	77,288
Caravan (Can. trk.)	3,080	3,652	15,811	123,817	104,872
Caravan C/V (trk.)	50	113	472	3,067	4,171
Caravan C/V (Can. trk.)	85	95	414	13,090	5,961
Dakota (trk.)	3,550	3,494	15,983	83,095	63,044
Ram pickups (trk.)	1,150	1,155	5,273	63,380	91,090
Ram Wagon (Can. trk.)	0	0	1,156	16,227	19,152
Ram Van (Can. trk.)	0	0	3,837	35,188	50,409
Total Dodge	**17,165**	**18,365**	**86,291**	**677,257**	**734,153**
Premier (Can.)	0	0	486	8,911	10,123
Cherokee (trk.)	4,300	4,348	19,893	129,003	133,326
Comanche (trk.)	100	119	532	4,519	7,894
Grand Wagoneer (trk.)	0	0	0	1,539	5,894
Wagoneer (trk.)	50	38	193	2,385	3,379
Wrangler (Can trk.)	1,590	1,612	6,781	53,479	50,362
Total Jeep-Eagle	**6,040**	**6,117**	**27,885**	**199,836**	**210,978**
Total U.S. car	**13,350**	**13,937**	**63,196**	**420,295**	**624,544**
Total Can. car	**0**	**0**	**722**	**17,368**	**18,879**
Total U.S. truck	**13,750**	**14,840**	**86,863**	**471,671**	**459,624**
Total Can. truck	**6,790**	**8,813**	**38,696**	**335,295**	**315,419**
CHRYSLER CORP.	**33,890**	**36,790**	**189,437**	**1,244,589**	**1,418,266**
Escort	0	5,361	15,896	168,083	217,233
Mustang	2,678	2,353	8,160	76,310	117,296
Tempo	2,704	2,917	10,481	95,696	110,846
Tempo (Can.)	0	3,802	8,821	90,695	99,133
Taurus	7,221	7,200	33,445	275,593	294,258
Thunderbird	0	2,925	5,834	64,168	101,173
Crown Victoria (Can.)	2,118	0	7,295	78,474	102,663
Aerostar (trk.)	4,002	4,007	18,251	149,341	181,099
Bronco (trk.)	709	621	3,163	16,853	43,501
Explorer/Bronco II (trk.)	7,687	6,407	31,519	239,212	174,062
Navajo (trk.)	202	192	1,013	10,085	6,186
Econoline (trk.)	4,184	4,262	18,173	121,141	149,510
Heavies (trk.)	1,037	0	2,674	27,634	43,565
Light trucks (trk.)	10,563	10,872	46,535	281,355	391,910
Light trucks (Can. trk.)	2,665	3,040	9,922	81,486	116,865
Ranger (trk.)	7,368	7,028	30,219	236,756	246,714
Total Ford Div.	**53,158**	**66,787**	**251,481**	**2,012,881**	**2,386,016**
Topaz	1,175	1,439	4,511	39,798	41,712
Topaz (Can.)	0	970	3,100	29,905	36,306
Cougar	0	1,296	2,707	47,529	66,516
Sable	3,158	3,301	14,480	90,956	91,029
Grand Marquis (Can.)	2,682	0	9,510	88,307	96,764
Total Mercury	**7,015**	**6,906**	**34,309**	**296,486**	**332,327**
Continental	1,066	1,181	5,370	46,995	51,091
Mark VII	188	210	934	8,240	16,724
Town Car	2,404	2,784	12,541	110,423	128,085
Total Lincoln	**3,658**	**4,175**	**18,845**	**165,658**	**195,900**
Total L-M Div.	**10,673**	**11,081**	**53,153**	**462,153**	**528,227**
Total U.S. car	**20,594**	**30,867**	**114,359**	**1,023,792**	**1,235,965**
Total Can. car	**4,908**	**4,572**	**28,726**	**287,381**	**334,866**
Total U.S. truck	**35,772**	**33,389**	**151,547**	**1,982,379**	**1,236,547**
Total Can. truck	**2,665**	**3,040**	**9,922**	**81,486**	**116,865**
FORD MOTOR CO.	**63,831**	**71,868**	**304,554**	**2,475,834**	**2,924,243**
Skylark	2,372	1,980	8,119	47,275	80,496
Century	2,314	2,776	11,611	83,089	59,872
Regal (Can.)	3,200	3,273	14,166	108,166	84,773
Riviera	377	290	1,362	7,853	19,426
Park Avenue/Electra	1,766	1,748	8,277	80,936	54,238
LeSabre	4,155	3,800	17,743	85,135	140,086
Roadmaster Sedan*	1,287	1,349	5,865	36,169	0
Roadmaster Wagon†	336	285	1,410	12,869	4,022
Reatta	0	0	0	1,210	5,277
Total Buick	**15,817**	**15,501**	**68,555**	**482,701**	**448,192**
Eldorado	776	584	2,831	11,092	18,466
Seville	841	667	3,105	21,247	29,981
Brougham	552	578	2,546	18,080	25,778
DeVille	3,718	3,725	17,090	132,807	142,515
Allante	61	64	291	2,531	3,292
Total Cadillac	**5,948**	**5,828**	**25,882**	**185,756**	**219,932**
Cavalier	5,341	6,190	26,547	213,617	301,370
Camaro	1,402	1,423	6,366	46,205	60,836
Celebrity (Can.)	0	0	0	0	20,319
Corsica-Beretta	5,856	5,679	24,124	202,341	246,546
Lumina (Can.)	6,000	6,047	27,063	202,950	189,398
Caprice	2,425	2,518	11,065	111,042	184,268
Corvette	480	480	2,208	17,676	20,542
Astro (trk.)	3,321	2,817	12,574	85,994	112,286
Blazer (trk.)	235	126	529	6,168	14,316
Lumina APV (trk.)	1,603	1,636	7,930	41,410	74,831
Mediums (trk.)	220	126	576	2,056	9,133
P-Model (trk.)	428	494	836	16,529	18,484
Pickups (trk.)	6,120	6,926	29,764	249,646	362,619
Pickups (Can. trk.)	3,500	3,640	15,865	121,214	144,409
S10 (trk.)	6,892	6,325	30,471	222,854	207,370
S10 Blazer (trk.)	2,945	2,709	11,259	40,224	71,629
Sportsvan (trk.)	1,125	1,368	5,850	37,048	53,375
Sportsvan (Can. trk.)	1,500	1,810	6,905	45,782	42,832
Suburban (trk.)	100	15	185	21,326	57,865
Total Chevrolet	**49,293**	**50,129**	**220,137**	**1,883,881**	**2,197,430**
Achieva/Calais	12	0	10	34,628	89,864
Cutlass Ciera	3,146	3,797	15,880	86,718	61,175
Cutlass Ciera (Can.)	0	0	0	41,161	66,620
Cutlass Supreme	3,180	2,701	13,731	91,420	61,645
Toronado	222	165	793	4,479	13,484
88	2,914	2,757	12,726	74,607	90,177
Custom Cruiser Wag.††	160	159	712	7,252	1,223
98	1,482	1,475	6,783	65,503	38,099
Silhouette (trk.)	446	459	2,420	17,569	27,822
Bravada (trk.)	423	157	1,095	12,529	260
Total Oldsmobile	**11,985**	**11,670**	**54,150**	**435,866**	**470,369**
Sunbird	2,466	2,842	12,208	99,643	140,502
Grand Am	5,558	5,500	20,825	113,288	187,918
Firebird	598	612	2,834	17,858	36,911
Grand Prix	3,364	3,367	15,430	93,592	106,638
Pontiac 6000	0	0	0	19,603	48,330
Bonneville	2,985	2,997	14,041	67,701	67,613
Trans Sport (trk.)	948	883	4,740	25,769	40,894
Total Pontiac	**15,919**	**16,201**	**70,078**	**437,454**	**630,806**
Yukon/Jimmy (trk.)	81	137	301	1,912	4,348
Mediums (trk.)	380	423	1,001	4,114	8,045
P-Model (trk.)	42	16	50	1,997	2,429
Pickups (trk.)	3,084	2,668	10,618	102,333	126,847
Pickups (Can. trk.)	1,200	1,214	5,258	44,690	54,465
Syclone-Sonoma (trk.)	1,335	1,109	5,613	50,816	46,006
S15 Jimmy-Typhoon (trk.)	1,094	864	3,891	14,334	23,555
Safari (trk.)	1,287	909	4,444	34,455	39,190
Suburban (trk.)	30	8	62	17,086	27,872
Vandura (trk.)	490	575	2,360	16,245	19,553
Vandura (Can. trk.)	500	533	2,229	18,892	16,692
Total GMC	**9,523**	**8,407**	**35,826**	**306,874**	**369,992**
Total Saturn	**3,858**	**3,858**	**16,798**	**81,388**	**2,325**
Total U.S. car	**63,896**	**64,188**	**283,323**	**1,988,846**	**2,378,817**
Total Can. car	**9,280**	**9,328**	**41,248**	**352,276**	**361,119**
Total U.S. truck	**32,429**	**30,761**	**136,568**	**1,021,412**	**1,347,731**
Total Can. truck	**6,780**	**6,997**	**30,257**	**230,578**	**258,386**
GENERAL MOTORS	**112,135**	**111,246**	**491,397**	**3,593,112**	**4,338,056**
Can. car	2,250	2,306	10,448	92,740	15,100
Can. trk.	1,500	1,509	6,802	44,489	9,702
CAMI*	**3,750**	**3,815**	**17,250**	**137,229**	**24,802**
DIAMOND-STAR*	**3,862**	**3,834**	**15,920**	**129,365**	**129,296**
Civic	1,905	1,636	5,940	69,069	90,607
Civic (Can.)	541	2,200	8,106	86,572	86,454
Accord	8,105	7,981	37,343	310,972	283,139
Total U.S. car	**10,010**	**9,817**	**43,283**	**386,041**	**373,746**
Total Can. car	**541**	**2,200**	**8,106**	**86,572**	**86,454**
HONDA	**10,551**	**11,817**	**51,389**	**468,613**	**462,200**
HYUNDAI Sonata (Can.)	**478**	**955**	**2,013**	**21,795**	**20,631**
MAZDA*	**4,031**	**4,068**	**18,542**	**138,186**	**153,706**
U.S. trk.	1,695	392	4,687	54,747	62,556
Can. trk.	0	166	430	5,751	7,416
NAVISTAR	**1,695**	**558**	**5,117**	**60,498**	**69,972**
Sentra	2,860	2,868	13,541	111,636	77,957
Pickup (trk.)	2,774	2,740	13,150	112,202	120,187
NISSAN	**5,634**	**5,628**	**26,691**	**223,838**	**198,144**
Geo Prizm	1,850	1,903	8,551	76,528	85,917
Toyota Corolla	2,400	2,434	11,027	87,714	86,971
Toyota Hilux (trk.)	150	170	661	916	0
NUMMI	**4,400**	**4,507**	**20,239**	**165,109**	**172,888**
Legacy	1,259	1,090	5,697	48,249	26,315
Pickup (trk.)	592	566	2,660	22,447	0
Rodeo (trk.)	1,048	911	3,812	25,164	0
Total U.S. car	**1,259**	**1,090**	**5,697**	**48,249**	**26,315**
Total U.S. trk.	**1,640**	**1,477**	**6,471**	**47,611**	**28,998**
SUBARU-ISUZU	**2,899**	**2,567**	**12,169**	**95,860**	**55,305**
Camry	4,866	3,917	17,913	156,510	187,476
Corolla (Can.)	1,500	1,502	6,502	56,072	51,426
TOYOTA	**6,366**	**5,419**	**24,415**	**212,582**	**238,902**
VOLVO 740,940 (Can.)	**150**	**150**	**644**	**6,583**	**6,786**
AM GENERAL (trk.)	**375**	**400**	**1,820**	**17,485**	**18,998**
MISCELLANEOUS (trk.)**	**2,988**	**2,888**	**11,888**	**115,829**	**126,888**
Total U.S. car	**128,823**	**138,983**	**595,351**	**4,981,182**	**5,382,709**
Total Canada car	**18,919**	**20,885**	**99,089**	**922,897**	**887,851**
Total U.S.-Canada Car	**147,747**	**159,268**	**694,360**	**5,483,999**	**6,248,788**
Total U.S. truck	**91,885**	**86,788**	**383,648**	**2,923,429**	**3,401,225**
Total Canada truck	**17,856**	**19,725**	**86,867**	**697,998**	**787,998**
Total U.S.-Canada truck	**188,749**	**188,494**	**479,716**	**3,620,939**	**4,189,825**
TOTAL U.S.	**219,913**	**225,432**	**986,998**	**7,484,582**	**8,783,934**
TOTAL CANADA	**36,574**	**40,338**	**185,877**	**1,620,317**	**1,684,851**
TOTAL U.S.-CANADA CAR & TRUCK	**256,487**	**265,762**	**1,174,875**	**9,104,898**	**10,358,785**

*Estimate †1990 totals reflect LeSabre (red) ††1990 totals reflect Olds. 88 (red)

*CAMI includes Geo Metro and Suzuki Swift cars and Geo Tracker and Suzuki Sidekick trucks; Diamond-Star includes Eagle Summit and Talon, Mitsubishi Eclipse and Mirage and Plymouth Laser; Mazda includes MX-6, 626 and Ford Probe.

**Estimates for Mack, Volvo-White, Kenworth, Peterbilt, Freightliner, Mercedes-Benz. May contain error of one or two units due to rounding.

Ford shuts six plants for week

ANNE E. WRIGHT
Chief Statistician

Ford Motor Co. continues to reduce production in both the United States and Canada because of slow sales.

Six plants have been added to Ford's downtime list this week: the Edison, N.J.; Wixom, Mich.; Dearborn, Mich.; and St. Thomas, Ontario car facilities and the St. Paul, Minn., and Kentucky Truck (Louisville) truck plants.

When the Wixom plant returns to work next week, production will be cut to two-thirds of the normal level through year end. A majority of the Lincolns trimmed are cars usually sold to rental accounts, which have switched to a six-month replacement cycle from four months.

General Motors began building the Oldsmobile Achieva at the Lansing, Mich. (M), assembly plant last week.

The Achieva, which will go on sale in January, replaces the Cutlass Calais.

Last week's estimated U.S. car production was 128,828, down 7.1 percent from the prior week and 8.9 percent below the year-ago week.

Canadian automakers scheduled 18,919 cars last week, down 8.2 percent from the prior week and 30.2 percent below the year-ago week.

Year-to-date, U.S. auto production is 14.8 below the same period in 1990.

Canadian auto production for the year is up 2.9 percent over 1990.

Truck production last week in the United States was scheduled at 91,085 units, 5.0 percent ahead of the prior week and 10.3 percent over the same week one year ago.

In Canada, 17,655 trucks were scheduled to be produced, a decrease of 10.5 percent from the prior week and an increase of 22.6 percent over the year-ago week.

Year-to-date, U.S. truck production trails 1990 by 14.1 percent.

Canadian truck production in 1991 is nearly even with 1990, down only 1.5 percent.

Chrysler Corp. scheduled two shifts of Saturday overtime at the Warren, Mich., truck plant last week and has scheduled daily overtime on two shifts at the St. Louis (No. 2) truck plant this week.

Ford scheduled daily overtime last week at the Kansas City, Mo., and the Louisville, Ky., truck facilities.

The Louisville plant was also slated to work one shift of overtime last Saturday.

GM scheduled overtime at three car plants and six truck plants last Saturday: the Flint, Mich.; Doraville, Ga.; and Wilmington, Del., car plants and the Baltimore; Janesville, Wis.; Moraine, Ohio; Pontiac, Mich. (West); Scarborough, Ontario; and Oshawa, Ontario, truck plants.